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NASHVILLE JOURNAL

— OF —

MEDICINE and SURGERY

C. S. BRIGGS, A.M., M.D.  
EDITOR and PROPRIETOR

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Volume 107—January-December, 1913

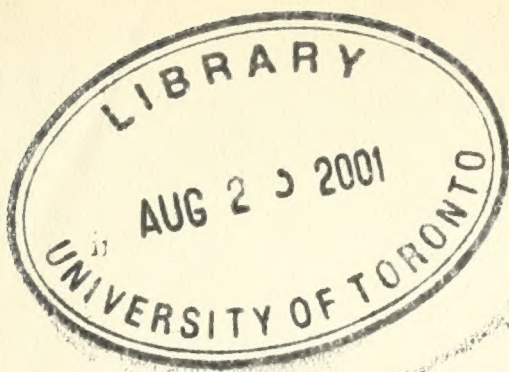
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NASHVILLE, TENNESSEE  
1913







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# NASHVILLE JOURNAL — OF — MEDICINE AND SURGERY

CHARLES S. BRIGGS, A. M., M. D., Editor

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## Original Communications

A. C. E. AS AN ANÆSTHETIC.

By W. T. BRIGGS, M.D., Nashville, Tenn.

One can seldom pick up a medical journal without seeing one or more article on anæsthetics, and so I open this article by offering apologies to those who read it if perchance they find their time has been wasted. All these numerous articles are poured forth on the medical profession simply because of the various opinions in regard to the relative safety of the different anæsthetics now employed, the different methods of administration, whether morphine and atropine, atropine alone, or other drugs are to be used previous to anæsthesia, and if so, how long before commencing the administration of the anæsthetic and on what class of patients, the best stimulants to use when anæsthetic collapse occurs, and finally the best methods to employ to prevent post-anæsthetic nausea. The least that can be said so far as regards their relative safety is that each and all are dangerous, and this one fact above all others should be impressed on the student and the young practitioner, for if he commences practice inclined to disregard the dangers incident to anæsthesia he will sooner or later be brought face to face with death, and can consider himself lucky if this disaster can conscientiously be attributed to some cause other than his own carelessness.



Any drug that prevents pain so absolutely as anæsthetics do is necessarily dangerous, and while in the future some relatively less dangerous drug may be found, it will still carry its element of danger, ever ready to destroy life should the anæsthetist become careless. The surgeon who tells his patient that anæsthetics are not dangerous—fortunately there are not many who do this—forgets that not only these drugs, but that quinine, potassium iodide, and other drugs in every day use, drugs that are ordinarily prescribed in large doses, are also dangerous and occasionally kill, even in small doses, whenever the patient has an idiosyncrasy. Therefore we must always bear in mind the possibility of an idiosyncrasy toward anæsthetics. Unfortunately, however, we can not discover this small class of patients until we try the drug, and then it is sometimes too late. We do know that patients suffering with hyperplasia of the lymphatic tissues, e. g., tonsils, adenoids, thymus gland, etc., stand anæsthetics poorly, especially chloroform.

At the present time by far the best anæsthetic we have, so far as safety is concerned, is nitrous oxide gas, especially when it is administered in conjunction with oxygen. This anæsthetic is becoming more and more popular, is being used in operations of long duration, as well as in minor operations, and some day may be *the* anæsthetic, but such is not, and can not be the case today.

The apparatus necessary for its administration is too bulky and too expensive for general use, to say nothing of the fact that the ingredients themselves are far more costly than most other anæsthetics.

Ethyl chloride has many of the advantages of nitrous oxide and oxygen, insofar as rapidity of action and freedom from post-anæsthetic nausea is concerned, but is even more dangerous than chloroform, and for that reason is not generally used. However, some surgeons use it in short operations, and it was formerly used as a preliminary to ether or chloroform, but now is not employed much, even in that capacity.

Ether and chloroform are used more throughout the world than all other anæsthetics added together, and Stuart McGuire, in his "Principles of Surgery," states that chloroform is used



more than ether. The latter drug, according to statistics, is about four times as safe as chloroform, but we can not rely too much on these statistics, because they are compiled mainly from Eastern and Northern sources, and by no means include all cases; in other words, there are thousands of successful administrations with chloroform on the continent and in Southern countries that are not included in these statistics. It seems that chloroform is given with less danger the further South we go. This may be due to some difference in the metabolic processes in individuals of Southern races, but when we consider that so far no one has discovered any marked variations in the metabolism of Northern and Southern races, and that chloroform usually kills the patient at the commencement of the anæsthetic, and that so far as previous preparation of the patient, room temperature, temperature of the anæsthetic, etc., are concerned, the conditions are practically identical, we must confess that the difference in mortality seems due rather to skill in administration than to difference in the metabolism of Southern and Northern races. However, few deny that chloroform per se., it matters not where or how administered, is more dangerous than ether. I am sure I do not. However, I do most strenuously deny that chloroform given correctly is so much more dangerous than ether, as it is claimed. Many of the chloroform deaths we hear of can be traced to lack of skill in administration. It has been my experience to see chloroform given by those accustomed to administer ether, and in most cases it has been given so rapidly that I expected to see death at any minute.

I remember a case of hernia in which first ether and then chloroform was used. The patient was a young negro. The operation lasted not longer than 40 minutes, and yet the patient took six ounces of chloroform and six and one-half ounces of ether. It is wonderful that the patient even left the table alive. Of course the above case is exceptional, but it is exceptional only in degree, not in kind. Men accustomed to giving ether are very apt to give too much chloroform, because they can not realize the wonderful power of the drug. If it is given in too large doses what can we expect but dangerous symptoms, even death



itself! Aconite is more dangerous than opium if it is given in the same dose, but none of us hesitate to give aconite. However, we do give it in the proper dose. Give it in overdose and you have a case of aconite poisoning. Give chloroform in over dose and you have collapse or death. Therefore the anæsthetist giving chloroform must know the power of the drug, and he must watch his patient. Most of the profession is of the opinion that chloroform is less dangerous in obstetric work. This may be true, and it may be due to the changes in woman incident to pregnancy, but what is more probable is the fact that as a rule it is given in small quantities and with plenty of air.

As there are certain selected cases in which chloroform is preferable to ether, and out of regard to the patient, should be used, regardless of the operator's views, I think in teaching the subject of anæsthetics, more stress should be put on chloroform and less on ether, inasmuch as the expert with chloroform handles ether better than vice versa. This is the case simply because the man who uses chloroform is more on his guard than the etherist. Theoretically such should not be the case, but practically it is.

While I have had some experience with ether and chloroform, I have administered the A. C. E. mixtures a great many more times than both the others combined. I have by the way seen dangerous symptoms develop from ether more often than from either A. C. E. or chloroform, although I have seen A. C. E. and chloroform given, counting in the times I have given them myself, more often than I have seen ether given. I know of several deaths in this city from ether, but only of one from chloroform.

I have seen dangerous symptoms during both the administration of chloroform and A. C. E., but in such cases the respiration only ceased, while the heart continued to beat. Such patients have always rapidly rallied. This stoppage of respiration before the pulse, I have also noticed in dogs, and according to the investigation of certain committees appointed to investigate this matter, this is nearly always the case in man. I give anæsthetics for the Briggs Surgical Infirmary in which institution chloroform is the anæsthetic of choice, but A. C. E. is usually given because

not a great many patients are suited to pure chloroform. A. C. E. is condemned as an anæsthetic by many just as many go so far as to say that the use of chloroform should be prohibited by the government.

These men may be right in their views, but if the use of chloroform were prohibited by law the mortality from ether would probably increase, because then ether would often have to be used in cases more fitted for chloroform and A. C. E.

Those who condemn A. C. E. do so on the ground that this mixture carries with it all the dangers of chloroform, all the disadvantages and few of the advantages of ether. Such statements are ridiculous. It can not be so dangerous as straight chloroform, simply because if the mixture is made up in the proportions, A.1, C.2, E.3, the patient can not possibly get as much chloroform vapor as ether, since there is more ether in every drop and more rapid evaporation of the ether. In order to be sure that each drop contains the proper proportions the bottle should be shaken now and then throughout the anæsthesia.

Narcosis, under A. C. E., resembles chloroform narcosis in the following respect:

1. Complete anæsthesia is produced more rapidly than with ether.
2. The stage of excitement is hardly noticeable.
3. After anæsthesia is produced relaxation is more complete than with ether.
4. Stertorous breathing is not often present.
5. Small amount to narcotize and small amount to keep the patient in that condition.
6. Less mucus and tongue swelling. I never have to sponge out the patient's throat or put forceps on the tongue.
7. Post-anæsthetic nausea is not so marked as with ether, but more so than with chloroform.
8. Less danger of post-operative pneumonia.

No one would take exceptions to statements 1, 2, 3, 4. In regard to No. 5, will say that in quite a number of administrations I have seldom given more than three ounces during any operation, the operations lasting anywhere from 10 minutes to an hour



and a half. Usually a third of this amount is required to produce complete anæsthesia. The statements under 6, 7, and 8 can hardly be gainsaid. That ether is more irritating to mucous membranes than chloroform no one will deny. Since in A. C. E. ether is present we must expect some direct irritation to the lining membrane of trachea. So far as that is concerned pure chloroform is irritating, but not so much as pure ether, and since the irritation is less than with ether we expect and find fewer cases of pneumonia. If all the postoperative pneumonias following ether were added to its death toll I think statistics would change somewhat, even in the North. Post-anæsthetic nausea is in all probability reflex through the branches of the vagus. If the branches in the lung are irritated, nausea and vomiting occur reflexly, and the greater the irritation of the pulmonary branches the greater the nausea and vomiting. Hence ether causes vomiting more than chloroform and also more than A. C. E.

A. C. E. narcosis, because of the ether present, is safer than straight chloroform because:

1. The oxygen atom in the ether is stimulating to the respiration and heart, and the oxygen in the alcohol has same effect. For the same reason the vasomotor system is stimulated.

2. The irritation itself from ether stimulates the vagus, and through it the heart, causing slower and stronger pulse.

In this brief paper it is impossible to go into detail in regard to the indications for the use of ether, chloroform, or A. C. E. Suffice it to say there are few cases in which A. C. E. properly given is not safe. In regard to its administration, I wish to emphasize the following points:

1. The patient's confidence must be gained in order to allay all nervousness. For this reason it is often better, especially in private practice, to let the surgeon himself start the anæsthetic while the anæsthetist stands close by to watch the patient.

2. The Esmarch mask should be held an inch or so from patient's face, removed even further should patient show by movement that the vapor is too strong.

3. The patient should be told to breathe naturally—not deeply.

4. The patient's head should be raised by only a folded sheet,

and should lie on the side so as to prevent any tendency to tongue swallowing.

5. The anæsthetist should keep the jaw pushed forward, and with same hand he can feel the facial artery, but should always remember that respiration is the main function to watch.

6. In watching the respiration look at the abdomen, because respiratory movement here shows that the diaphragm is working allright.

7. If patient breathes shallow, listen to respiration. Sometimes the chest moves and yet no air enters the lungs.

8. When the initial incision is being made remove the mask, and do the same when the sphincter ani is being dilated. At such moments patients often take a deep breath and may get an overdose.

9. If patient is breathing very deeply from any cause remove the mask entirely or hold it some distance away.

10. Never let a cyanosed patient get a strong whiff of the anæsthetic.

11. Never cover the mask and face with a towel to hasten anæsthesia—the face is a good index of both the circulation and oxygenation, and A. C. E. is dangerous if large doses are given.

12. Remember that a dilated pupil reacting rapidly to light calls for more anæsthetic, and that a pupil showing no reaction to light, whether dilated or not, calls for cessation of the anæsthetic until the patient gets some air. I have found watching the pupil a great help.

In closing I wish to quote the following paragraph taken from Stuart McGuire's "Principles of Surgery:"

"Nussbaum has seen in military life 40,000 chloroform anæsthesias without an accident; Hunter McGuire reports 28,000 administration in the Confederate army corps of which he was a Director without a fatality, and I, in private practice, have been present at 15,000 operations done under chloroform without a death from its use."



The above extract shows that in proper hands pure chloroform is not so dangerous as our statistics show, and that our death rate for chloroform of 1 to 4,000, and for ether of 1 to 20,000, is a reflection on the profession, and it further shows that A. C. E., since it has many of the advantages of pure chloroform, and yet is not as dangerous as that drug, could be used with relative safety were the administration of chloroform better understood.

## Proceedings of Societies

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THE ACADEMY OF MEDICINE, CINCINNATI, OHIO.

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Monday, December 9, 1912.

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### SURGICAL SECTION.

#### *Symposium On Infections in the Bile Passages.*

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Etiology and Pathology.—Dr. Paul G. Woolley.

Symptoms, Course, Duration, Complications, Etc.—Dr. O. P. Holt.

*Discussion.*—Medical, Dr. George Fackler; Surgical, Dr. Jos. Ransohoff, Dr. C. A. L. Reed.

### NOTES.

Dr. Henry L. Woodward presided.

Dr. H. K. Dunham presented a patient on whom Dr. Hamman, of John Hopkins, had done an artificial pneumothorax at the Branch Hospital three weeks ago. This operation has been repeated twice since, and patient was presented to show present condition with view to presenting him later with full report. He also showed X-ray of the abdomen in a woman with visceroptosis, who thought she had been cured by Christian Science, but almost lost her life by delay.

Dr. Rufus B. Hall reported two cases of gallstones with unusual complications (full report will appear in Lancet-Clinic).

Dr. Alfred Friedlander then read the report of the Milk Commission as to general progress and comparison with other years. (Will be published in the Lancet-Clinic.)

Dr. Henry L. Woodward, treasurer of the Milk Commission, then read the financial report, showing a loss on the operations for the fiscal year, ending August 31, 1912, of a little over \$10.



Dr. Robert Sattler presented brief case reports illustrating uncommon ocular symptoms: (1) Sudden total blindness, acute nephritis and uremia; (2) lesion of the hypophysis cerebri, optic atrophy; (3) sub-hyaloid hemorrhages of the retina in pernicious anemia.

Discussed by Dr. A. Friedlander, Dr. K. L. Stoll, Dr. C. W. Tangeman, and, closing, Dr. Sattler.

Dr. Edwin Shields then read the paper of the evening: "Mercury vs. Salvarsan in the Treatment of Syphilis." Dr. Shields took the ground that in so far as salvarsan had not proven a cure in any very definite percentage of cases, and that practically all authorities advise mercury in conjunction with salvarsan, he thought it better to still rely on mercury in the treatment of syphilis. His paper was most excellent, and based on an extensive experience and very carefully collected statistics. He spoke of the dangers incident to the administration of salvarsan and the absence of mortality with the use of mercury. He advised inunctions and injections as the preferable mode of administration.

Dr. A. Ravogli discussed the paper and said he had seen fatalities from mercury, and, while he agreed in the main, he still thinks salvarsan should be used, as it will take a long time yet to find its true value.

Dr. M. L. Hedingsfeld, in discussing, said that salvarsan properly used did not give any bad results, and that his per cent of cures were good; the Wassermann should be our control in treating these cases, and that more syphilis was cured today than ever before. He advised freshly distilled water as a vehicle and careful laboratory work to check up the results.

Dr. Herman asked if any cases of deafness had been reported, as he had seen one case follow in three weeks.

Dr. S. G. Kinke spoke of stomatitis as a guide to mercury saturation, and of the rules of the army—diet, no alcohol and special care of the teeth.

Dr. Souther spoke of the impossibility of reaching the spirochæte in certain lesions or pathological conditions in syphilis, of the effects of mercury and K. I. on nerve tissue, and that it probably caused some of the neuritis that was charged to syphilis; of

the rapid elimination of salvarsan, and the probability that mercury really did more harm than salvarsan.

Dr. Shields closed the discussion.

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Monday, December 16, 1912.

“Report of Scientific Researches on Milk Fever and Its Probable Connection with Eclampsia.”—Dr. J. H. Kassell and Dr. D. J. Heally, of the Kentucky Experimental Station.

#### NOTES.

Dr. W. A. Gardner and Dr. Geo. E. Orebaugh were elected to membership.

A communication from the Ohio Valley Druggists' Association was read, asking if a joint meeting could be arranged for the Association and the Academy, at which time Dr. P. G. Heine-mann, of the University of Chicago, who is in charge of the department that prepares the memorial antitoxin, will give an illustrated lecture as regular order of business.

On motion of Dr. A. G. Drury, seconded and carried, Monday evening, December 23, the regular case report night, was set for the arranging of the joint meeting, said joint meeting and lecture to be the regular order of business.

December 16 (next Monday night) nominations for officers of the Academy for 1913 will be made from the floor, and an election committee will be appointed by the chair to receive and count the ballots. Voting as usual will be by mail or in person, ballots to be turned in before the meeting opens, on first meeting night in January (6th).

Dr. S. P. Kramer presented patient from whom he had removed a brain tumor. He also presented the specimen. He stated in the report that he had done the operation at one sitting and that the patient had a pronounced shock following the work. He advises to do the operation in two stages, as a rule. (1) Remove the skull; (2) in a few days to then attack the tumor, as this produces much less shock.



Dr. John E. Greiwe presented a patient the subject of a pneumothorax due to a rupture of the lung (accidental, not artificial). Patient had emphysema and long-standing bronchitis, attack came on suddenly and produced great dyspnea and weakness; this cleared upon rest in bed. Several splendid X-ray stereoscopic pictures were shown to illustrate stages of the pneumothorax.

Dr. E. G. Zinke reported a case of procidentia in which was also found a large gall-bladder filled with gallstones. Case reported on account of almost freedom from any symptoms pointing to the gall-bladder, yet the patient had two or three ounces of small stones.

No discussion on these cases on account of the lateness of the hour.

*Symptoms on Infections of the Bile Passages.*—Dr. Paul G. Woolley, in discussing the etiology and pathology, took up the possible avenues of advent of infection, and the different forms of bacteria that were most frequently found to be the cause of inflammation of the bile tracts; the possible effects on the pancreas and the types of and degrees of infection that may result from different forms of bacteria, typhoid and paratyphoid bacteria receiving most attention. The effect of biliary obstruction on the liver and pancreas was considered from a pathological standpoint. (Paper will be published in *The Lancet-Clinic*.)

Dr. Oliver P. Holt spoke on the symptoms, course, duration and complications. He took up in a very careful and complete manner all the symptoms of gall-bladder disease, as it occurs when the bile passages are alone involved, and then considered the symptoms of the different conditions that might in any way be mistaken for gall-bladder trouble, following with a differential diagnosis of pancreatic, stomach and duodenal conditions. He advised that surgical intervention be resorted to before complications had converted an easy operation in one of the most difficult problems with which the surgeon has to deal.

Dr. George Fackler opened the discussion on the part of the medical man, saying that the medical side could be rather briefly considered, as after a fairly conclusive diagnosis had been made that the curative treatment was distinctly surgical. The greatest

work of the medical man was in proper care of the cases during the acute periods and relieving of symptoms and preventing complication. He agrees with Dr. Holt as to the advisability of surgical treatment before complications, and at a time when mortality was at its lowest point. He spoke of the cardio-vascular changes that accompany long-standing gall-bladder infection, and of the changes in the liver and the possibility of malignancy.

Dr. Joseph Ransohoff opened the discussion on the part of the surgeon by reading from the Medical Record, 1882, of his first operation for gall-stones, which he said was the third deliberately planned gall-stone operation in this country. He took a rather more conservative stand than did the medical men, and said that in rare instances gall-stones were gotten rid of without surgical intervention, but that waiting was not justifiable. Operation should be done early before the cases are complicated. He said a second and even a third operation was at times necessary, and that a second crop of stones could form.

Dr. C. A. L. Reed took up the possible relation of pelvic infection as an etiological factor in hematogenous infection, also the relation of general urunculosis to infection through the blood or lymph stream. He said he had only one time to do a second operation. He also spoke of the pioneer work in this field, and of the advisability of simply draining the gall-bladder; also of the advantage of having the gall-bladder left in, in certain cases, where it was thought best or necessary to do a cholecystenterostomy.

It will be greatly appreciated by the secretary if the essayist will hand in a one-hundred word synopsis of his paper for the Bulletin.



## Selected Articles

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### RECENT FRENCH PROGRESS IN MEDICAL RENAL DISORDERS.

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By CECIL KENT AUSTIN, M.D., Paris, France.

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The lay scoffer is still very much to the front with his time-worn taunts against the medical man, whom he looks on as an individual sleepily gyrating in a never varying circle, his shoulders burdened down with tradition, prejudice, and etiquette. Look at the surgeons," he cries; "see the wonderful things that they are accomplishing. Why can not you physicians accelerate the pace a little bit?"

We of the medical side are still, unquestionably, struggling with difficulty against our multitude of determined pathological adversaries, no such extraordinary and colossal streak of luck having as yet fallen to our lot as to the gentlemen of the knife, whom a clear-seeing chemist (and not a surgeon) freed forever from the nightmare of infection, with a single discovery clearing the field for all their future audacities. But still, however much our present status may leave to be desired, when compared with the complacency and liberty of action of the surgeon, the immense effort that is being put forth by the medical profession in the different countries is slowly but surely bringing their province also gradually out of darkness into light, and reducing into some semblance or order what has until recently been a state of affairs not altogether dissimilar to primeval chaos.

The special field of which I wish to speak today—medical nephritis—has been one of the latest to be taken in hand. But the work that has been accomplished in this branch during the past ten years, and in particular by a set of young French scientists in Paris, has at last brought it also into line and introduced into it a certain degree of general order, whereas previously a bewildering state of incoherence was the best that was at our disposal.

The researches of Widal, Castaigne, Archard, Javal, Albarran, Ambard, and others have, as a matter of fact, effected for nephritis very much the same fundamental clearing work as was carried out by Charcot when he first took hold of diseases of the nervous system fifty years ago. For I think that it is no exaggeration to say that if a physician who graduated only fifteen years back, and who, let us say, for one reason or another had paid no attention whatever to kidney diseases since that time, were today to pick up the most recent French monograph on nephritis, he would find himself in an entirely new atmosphere of which he hardly understood even the terminology. He would, in fact, be obliged to begin by forgetting all that he had ever learned on the subject, and take it up entirely anew.

For what did the man of only fifteen years ago know about nephritis? He was taught that there were acute and chronic forms, and parenchymatous and interstitial varieties; he studied under a microscope the big white kidney and the small retracted one; he tested the urine for albumin; and, if he was an advanced laboratory man, he experimented with urinary toxicity. Then when that had been done he told his patient to go on a milk diet for the rest of his days—full stop—and that was all. If, as not infrequently happened, his client had a rooted aversion to milk in any form, the medical adviser had practically no alternative to offer, and the patient got along as best he could on any haphazard regime.

That was all only a short time ago, the first step in advance having been made by Widal at the beginning of the century. These researches and experiments of Widal's concerning the action of faulty elimination of chlorides in producing edema in certain forms of nephritis were followed by similar demonstrations as to nitrogen retention in the blood. Various means were devised for testing clinically the value of the kidney as a filtering organ. An entirely new classification of nephritis was advanced and accepted by everyone. The old state known as uremia was given another name and divided into altogether new forms. And, last and principally, the whole question of treatment, after all the only one of importance, was completely revolutionized and put



on an intelligent and reasonable basis, to the relief of the medical man, and to the incalculable benefit of the patient. Since all of this work is relatively new, and has appeared in French; and since there are reasons for believing that even in its land of origin it has not yet found its way into the rank and file of practitioners, many of whom have not even grasped the significance of the simple chloride idea, but believe that *all* persons presenting medical albumin in the urine must be put on a chloride-free diet, it seems as though a brief review of the present situation may not be untimely. This I shall do in as general and elementary a fashion as possible, simply to call attention to the matter and awaken interest in it, referring the reader desirous of more complete information to any one of the many monographs that have appeared in France on the question of late, but above all to Castaigne's small handbook "Les Maladies des Reins," published only a short time ago.

In the conception of the young French school the old anatomical classification of nephritis is set aside as being of merely academic interest; their view of the question is a purely practical, clinical one. They treat the kidney as a common filter, which may or may not be carrying out its function properly. When it does so it is called permeable; when defective, more or less impermeable, such impermeability being at times elective, at others general. Defective action may be either plus or minus; that is to say, the organ may either filter too freely, for instance, it may allow substances to escape that are usually retained in the blood, as is the case when albumin appears in the urine; or it may not filter sufficiently, damming up in the blood and its outlets substances that normally pass freely through the filtering organ, such as chlorides or urea. Such defective filtering, when minus, often reacts on the circulating system, heart and arteries, producing degenerative lesions, increased tension, cardiac hypertrophy, etc.

These few general ideas will render comprehensible the classification now introduced of medical nephritis, which is divided into four forms: albuminous, chloremic, uremic, and cardiovascular—the four being susceptible of a variety of combinations. It

should here be stated with particular emphasis that in the present order of things uremia refers to an altogether new conception, the retention of urea in the blood, and not to the old idea of the general terminal state of nephritis preceding death; that is now known as renal insufficiency. This point can not be too carefully borne in mind.

The conception of the kidney as a more or less permeable filtering organ has led to the creation of an entirely new chapter in the question, the study of the means to be employed for ascertaining clinically the degree of permeability of a patient's kidneys. And I can not give a better idea of the amount and importance of the work that has recently been put in in this department than to point out that Albarran's book on the means for testing renal permeability is a work of five hundred pages. Fortunately, however, it is not necessary for the practitioner to go into the subject quite to that extent, and at the present time it will be amply sufficient for him to use, when circumstances seem to indicate it, the methylene blue test, which is extremely simple and well within the attainments of the most ordinary practitioner. A hypodermic injection of one cubic centimeter of a solution of methylene blue is made, under specified conditions, and then the urine is taken at frequent intervals and its color noted. This blue passes very quickly into the urine, whose coloration, under normal condition, rises steadily to a certain intensity in a given time, remains there a while, and then decreases to extinction, also in a fixed period. The whole affair can be indicated by a graphic curve, resembling somewhat the chart of a pneumonia patient; its laws are now well known, and it is the greater or less deviation from the normal type that reveals the degree of impermeability of the kidneys.

Attention having been called to the kidneys by certain symptoms, possibly by the discovery of albumin on routine examination, as for life insurance, the problem for the physician is the following: To test the efficiency of the renal filter, and, in case of deficiency, to ascertain whether there is chloride or urea retention; also to explore the condition of the cardiovascular sys-



tem, degeneracy, high tension, hypertrophy, galloping rhythm, etc.

A patient with albumin in his urine may be otherwise in an absolutely satisfactory condition, and remain so for years and years. His filtration may be perfect to the methylene blue, his tension and heart normal, and there may be neither chloride nor urea retention. Such a patient can therefore be allowed wide liberty in diet; he merely requires careful watching and retesting at regular intervals, but on the whole his lot is by no means an unhappy one. In former time he would, of course, have been to a milk diet, *volens volens*. This is practically an entirely new type of nephritis in medicine, one that is by no means rare, and a class of patients which has derived benefit from the advance in the study of nephritis.

Another patient, with more or less edema, will be found to show a large amount of albumin in the urine, and there may be headache, dyspnea, nervous symptoms, or convulsive attacks. The test with methylene blue is normal or even plus; cardiovascular signs are absent; the amount of urea in the blood does not exceed the normal maximum of half a gram per liter; but the patient is found to be in a condition of chloride retention, the power of filtering this substance being for the time arrested in the kidneys to a greater or lesser degree. This chloremic type is a common form of acute nephritis, and is most interesting as a subject of study on account of the facility and accuracy with which an excess of chlorides in the system can be demonstrated to be the edema-producing factor. For reasons still unknown, as soon as the percentage of sodium chloride in the blood exceeds the normal figure, Nature gets rid of it at once by pouring it out of the circulation into the interstitial and cellular tissies, or into the virtual cavities of the body. Once there, however, the sodium chloride can be tolerated by the tissues only at a given point of dilution; it therefore attracts to itself the necessary amount of serum for this dilution, and it is this process that gives rise to the various forms of edema, anascara, effusions into the peritoneal, pericardiac, or pleuritic cavities, or to the more insidious conditions of interstitial infiltration of the viscera—brain, lungs, or digestive tract.

These deeper forms can exist quite separately from the superficial, visible forms, and are the basis of most of the clinical visceral symptoms of this condition—headache, disordered sight, vomiting, dyspnea, etc., as can be so readily demonstrated by a chloride-reduction diet or lumbar puncture. Of the two forms of nephritis retention, the chlorides and the urea group of substances, this is by far the least serious and most amenable to treatment. Nothing can be more gratifying to the practitioner than the way in which a typical case of this category reacts to intelligent management. Such a patient, with proper handling, will in a few days' time pass from a water-logged condition with headache, dyspnea, and vomiting, to one of comparative comfort in which he can confidently await a gradual return to relative health. This class of cases also has benefited enormously from the new ideas as to the diet suitable to such conditions. The old milk diet was, to be sure, already one in which the chlorides are reduced to a very low figure, about  $1\frac{1}{2}$  grams per liter; but its weak point was that to a system already burdened with an excess of liquids it brought a still further excess; so that the end, though attained, was attained much more slowly than by the present method. It had been found empirically to fill the bill, but it did so only in a lame and half-hearted manner. Nowadays this type of patient receives an almost luxurious diet; plenty to eat, but only articles containing a minimum of NaCl, such as meat, fresh-water fish, eggs, dried leguminous vegetable, cereals, herbaceous vegetables, fruit, milk and fresh cheese, and a variety of minor substances for seasoning. The preparation of many of these dishes without salt does not render them particularly palatable, and it is not long before the average patient commences to cry out for his usual seasoning in a more or less determined fashion. But to begin with, when dealing with one of the many people who have a horror of a milk diet, the physician is only too thankful to have at his disposal this precarious alternative; and in the next place, it is generally possible by this means to gain the necessary few weeks for tiding over the crisis, at the end of which period it is admissible to allow the patient a weighed amount of 2 to 3 grams of NaCl per diem, which he can distrib-



ute over his food as best he sees fit, without any very great detriment to his progress.

The next form we have to deal with is perhaps the most interesting, on account both of its relative newness and of its great clinical importance, since in a way it commands the entire *prognosis in chronic nephritis*. In the case of the albuminous form, the chloremic variety, and the cardiovascular type yet to be considered, the patient's outlook, at least for the immediate future, is as a rule fairly good. Under proper management, and granting the necessary docility in submitting to diets often not particularly appetizing, the patient's survival is frequently a very protracted one, although the remote prognosis is always serious. But with the appearance of urea retention opens the period of storms; so that with any case of renal impermeability the all-important point is: Is there or is there not urea retention; if so, what is its percentage, the prognosis being based on that detail in a manner that can almost be called mathematical?

Differing in this respect from chloride retention, urea and its minor relatives, when prevented from passing through the renal filter in a normal fashion, do not flow out of the circulation into the surrounding tissues, but remain in the blood or in the normal or pathological humors of the body, and experience has shown that their percentage is alike in all of them, whether blood serum, spinal fluid, or effusion into a normal cavity (pleurisy, ascites, etc.) Now the amount of urea in these liquids has to be measured by the customary chemical processes. When there is no effusion present, and when spinal puncture is not indicated by some predominating symptom, we are obliged to fall back on blood serum, of which about 10 cubic centimeters are required for an analysis. This can be obtained by wet cupping or by the insertion of a needle into a vein. When lumbar puncture has to be done the opportunity should never be omitted of making the necessary dosage; but the ideal situation (for the experimenter) is that in which there is effusion into one of the natural cavities; in such a case the practitioner has constantly the material at his disposal for all the tests he may desire.

Now experience has shown that the extreme normal limits for

the urea percentage in these liquids extends from 0.15 to 0.5 centigrams per liter of serosity. In the zone extending from 0.5 to 1.0 gh. come the moderate cases of urea retention, those in which the danger is not immediate. But from one to two grams denotes a serious condition, in which the patient generally does not last more than a year; while above two, through three, and up to four, the survival is a question merely of a few weeks or at most months. The estimation of this percentage is a little beyond the capacity of the average medical man, but well within that of any chemist, and nothing is easier than to take the required amount of serum from a patient and mail it to a laboratory in the nearest town, where the test can be made in a few hours.

This category of patients also has profited greatly by the changed ideas as to the diet best suited to such forms of nephritis. Since the pure types of this variety are quite "dry," that is, show no edema whatever, the question of liquids is with them one of minor importance; what they chiefly require is a diet in which nitrogen is either very much reduced or eliminated entirely. This is possibly an easier regime to establish, and to get the patients to accept, than the chloride-reduction diet. It consists in prescribing nothing but sugar and starches. Of these there is a wide scale, and a moment's reflection will show any medical man that it is far easier for a patient to eat a lot of grapes, a baked potato with butter, or rice with sugar and cinnamon, than it is meat, lentils, or bread without any salt.

The fourth, or cardiovascular type, is such a familiar one that there is nothing particularly new about it to render it of special interest for the moment; so we will pass immediately on to the consideration of renal insufficiency (formerly called uremia.)

This condition in reality scarcely deserves special description, since it is naturally not a morbid entity by itself. There is always renal insufficiency, from the moment that either of the two main forms of retention sets in, uremic or chloremic; it is only a question of degree. The old term uremia merely denotes the stage at which these conditions enter the danger zone. There are, then, these two varieties of insufficiency, the prognosis of the one, the dropsical form, being infinitely less alarming than that



of the other, the "dry" and more insidious variety. The main clinical symptoms of the latter are, in addition to a watery urine containing a relatively low percentage of albumin, first, a loss of desire for food, extending sometimes to positive repulsion; second, cerebral torpor; third, puritus; fourth, retinitis.

Treatment of the dropsical forms (chloremia) having already been referred to, that of the uremic type must now be mentioned. As good a way as any to begin with is what is known as a Guelpa cure of two to five days; this consists in an absolute water diet, with or without lactose, and a brisk purgation each morning. If there is no chloremia accompanying the uremia, a glass or two of a natural purgative water will suffice; in the opposite case scammony, or calomel, or some similar non-salt preparation, will be more advisable. This can be followed for a few days by a grape cure, during which the patient is required to consume two to three kilos of ripe, sweet grapes per 24 hours. At the conclusion of this stage the glycoamylaceous diet should be gradually established, and the patient given to understand, in guarded language but clearly, if possible, that the situation is a serious one and the outlook for the immediate future grave; and the relatives should be warned, according to the uremic degree reported by the chemist, as to the probable duration of the patient's survival.

In the foregoing paragraphs an effort has been made, under perhaps not altogether ideal circumstances, the article having been written at sea away from works of reference, to give a bird's-eye view of the present state of this question in France. It is one with which every practitioner should lose no time in making himself familiar, as it has been rendered in the hands of its gifted promoters preëminently *practical* and *clinical*. Whether considered from the viewpoint of diagnosis, prognosis, or therapeutics, it is of the deepest interest and importance. Nephritis is a common everyday disorder. Up to a few years ago this question was in a state of utter darkness, and the treatment of the condition blind empiricism. But at the present time, thanks to the unrelenting efforts of perhaps two men—Widal and Castaigne—

it has been put on a matter-of-fact, intelligible basis, and the service thereby rendered to this large class of patients can not well be overestimated.—*Medical Record*.

20, Rue Chalgrin.



**Extracts from Home and Foreign Journals.**

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**SURGICAL**

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INCREASE OF NEWER ABDOMINAL SURGERY DUE TO IN-  
CREASE IN TOXIC DISTURBANCES.

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Dr. Robert T. Morris, New York City, pointed out that cobweb adhesions in the attic of the abdomen belonged to the toxic group of manifestations, and said we were learning a great deal concerning how these toxic impressions lead to the formation of adhesions in cases without an acute inflammatory onset. In some instances bacteria penetrated the wall of the bowel. The endothelium was shed as a result of their presence and the lymph which exuded become disorganized and formed permanent adhesions that were common in the region of the cecum, largely in the region of the sigmoid, and largely in the region of the pylorus and the bile tract. Why were we having more abdominal surgery relating to Lane's kink, to Jackson's membrane, to cobwebs in the attic of the abdomen, than we ever had before? For the answer, we would turn to the statistics which were being collected by the Equitable Assurance Association of New York. This company found a rapid increase in insanity, and a rapid increase in the number of cases of arteriosclerosis. They found a rapid increase in the number of cases which belonged to the stage of decadence. When there was arrested development as a result of the decadent change that was now taking place in all the civilized nations in our present cultural period, physical defects or stigmata, as classified by psychiatrists, were increasingly in evidence. What were we going to do about it? Surgery had a place in a number of this group of cases and could afford much help, but the other part of the question related to a better development of individuals in the race. It was a question which was not under the control of the surgeon, but belonged to the physiologist and to the eugenicist, and surgery, he believed, was very important in that it would

require a higher degree of skill on the part of the surgeon decade after decade, and it would require him to be more alert and better able to analyze cases than he had been able to do before. There would be more Jackson membranes, more Lane's kinks, and more adhesions than before, due to the increasing toxic conditions which belonged to the decadent stage of our cultural period.—*The Lancet-Clinic.*

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#### GUNSHOT WOUNDS OF INTESTINE WITHOUT PERFORATION OF LUMEN.

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In Thornburgh's case 35 cm. of ileum was completely denuded of its peritoneal and most of its muscular coat. Its mesentery was destroyed. There were three wounds in the descending colon and very numerous wounds of the mesentery. No perforation of the intestinal lumen could be demonstrated. No further wounds of the viscera could be found. The wounds of the colon were inverted with purse strings or Lembert's, and attention was then directed to the wounded ileum. The patient was in such a condition of profound shock that resection of gut and mesentery was out of the question. The excellent proceeding, splitting the mesentery, described by Richardson, was also impossible, owing to the fact that the mesentery was destroyed. Thornburgh decided to try substitute omentum for the outer two coats of the ileum as well as for both layers of mesentery. The omentum was brought down and sutured to the superior surface of mesentery and gut by interrupted sutures. It was then carried over to the inferior surface and attached in like manner. The patient was drained in front and behind and placed in the Fowler position with the Murphy drip for the first twenty-four hours. The drip was discontinued after the first twenty-four hours and not resumed. The Fowler position was maintained for about two weeks. The convalescence was perfectly normal. There was no infection of any kind and the patient has perfectly recovered.—*The Journal of the American Medical Association.*



THE SURGICAL TREATMENT OF AORTIC ANEURISM.

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John A. C. Macewen, M.B., C.M., of Glasgow, in *Annals of Surgery*, November, 1912, considers the treatment of aneurism, otherwise inoperable, by the method of "needling," and reports a case so treated with a favorable outcome. The patient was a woman, 40 years of age, who had suffered from aneurism of the arch at least a year, and had during this time undergone the usual medical treatment with rest and starvation, and without any betterment of the symptoms before being referred to him. She remained in hospital under his care for seven weeks, during which time "a needle was twice introduced and a large area of the posterior wall was treated. . . . She returned to the hospital in January, 1910, had a needle introduced once, remained in hospital for a month, and was able to go home in a cab. . . . She returned to hospital in October, 1910, remaining there for a month, and on this visit had two needles introduced simultaneously on two occasions, at an interval of a fortnight." . . . "In July, 1912 (three years after treatment was first instituted), patient expresses herself as having been given a new lease of life and as feeling better than she had done for many years back."

The desirability of early diagnosis and treatment is urged; in large aneurisms leakage is predisposed to, and even needling, for this reason he states, may become undesirable.

It will be remembered that treatment by needling was first introduced in 1890, by Sir William Macewen, the idea being to lacerate the intima only to an extent sufficient to induce the formation of a "white clot" with subsequent organization. It was used in several cases by him and others, with varying results, and finally came into disuse owing to its uncertainty, the difficulty of limiting the effect of the puncture to the internal surfaces, and the fact that the aneurism is already lined with laminated clot. So far as the last objection is concerned, it has been demonstrated by Matas that even in false aneurisms there is formed a lining of endothelium, which is in all respects similar to the normal lining of the vessel. This is also formed over the laminæ of the aneurysmal sac, and hence could be expected to react to the stimulus.

It is interesting to note that as far back as 1852 an operation consisting of the rubbing together of the walls of the sac after it had been emptied of blood, was proposed and first executed by Mr. Ferguson, of King's College, London. His first case died some time after an apparent improvement had resulted, death being due to sepsis and embolism. In a second case by Mr. F. permanent cure resulted, but not until two years later. (Gross' System of Surgery, 3d edition, 1866, pages 699-700.) The modus operandi was not given by Ferguson, but the fact that a two years interval elapsed in the second case would rather point to a similar physio-pathology as that observed in needling.—*New Orleans Medical and Surgical Journal*.

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## MEDICAL

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### DIABETES AND TUBERCULOSIS.

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C. M. Montgomery states that the evidence which he has collected does not show that tuberculosis occurs more frequently in diabetes than in the general population at the same age periods. However, one is impressed by two facts: (1) the lowered opsonic index to the tubercle bacillus and a number of other bacteria in diabetes; and (2) the large number of cases of diabetes late in the course of the disease developing a very acute, extensive, and rapidly fatal form of pulmonary tuberculosis. Tuberculosis occurs more frequently in diabetes than in certain other chronic diseases. The frequency of tuberculosis in diabetes varies with a great variety of different circumstances. In the author's 25 collected autopsies on diabetic patients, six showed active pulmonary tuberculosis varying in acuteness and extent of involvement, and one showed adrenal tuberculosis without tuberculosis elsewhere. Out of 355 autopsies collected from the literature since 1882, including also the author's 25 cases, 138 (38.9 per cent) revealed pulmonary tuberculosis, mostly in an acute form. In some structures, for example, the bones, the author could not find a single case of tuberculosis in a diabetic patient. When



diabetes and tuberculosis are associated the diabetes can usually be shown to be the primary disease, in a number of cases it is impossible to show which is the primary disease, and in no case that the author has encountered has the tuberculosis been definitely proved by the evidence furnished to be the primary disease. When diabetes and tuberculosis are associated in the same patient either disease may show certain modifications in course and symptomatology, but often each disease runs a course apparently independent of the other. Like the clinical course the autopsy findings may reveal nothing unusual in regard to the tuberculosis, but in a number of cases one meets a tuberculous process that is marked by acuteness, the extensiveness of the disease, and a tendency to the early development of cavity formation. From the number of cases that have improved both as to their tuberculosis and their diabetes, one can not consider the combination of diabetes and tuberculosis as necessarily more hopeless than the diabetes or the tuberculosis alone. The prognosis in many cases depends largely on the treatment. — *American Journal of the Medical Sciences*.

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#### ARTIFICIAL PRODUCTION OF PNEUMOTHORAX IN PHTHISIS.

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The cases which Chitty considers as specially suitable for this treatment are: 1. Those in whom the disease is advanced on one side, while the opposite lung is unaffected, slightly affected, or quiescent. 2. Those in whom the temperature remains high in spite of the usual methods of treatment, and who show signs of auto-inoculation whenever they take any exercise. 3. Cases which are going downhill in spite of the usual methods of treatment. 4. Early unilateral cases for whom sanatorium treatment is not available. Especially does this apply to the bread-winner of the family. 5. Cases of severe recurrent hemoptysis. One is often in doubt as to which side is giving rise to the bleeding, but in these cases it would be quite justifiable to compress the worse lung, and, if this had no effect, then to aspirate the gas and repeat the operation on the other side. 6. Although most of the recorded cases have been patient's suffering from chronic tuber-

culosis, yet this has not been by any means invariably so, and some cases of acute phthisis have been successfully dealt with.—*The Journal of the American Medical Association.*

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#### MUCOCELE OF ANTERIOR ETHMOIDAL CELLS.

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E. C. Alles states that mucocoele of the ethmoidal cells alone, without any of the other sinuses being affected at the same time, is rare. Again, acute or subacute purulent sinusitis of the ethmoid is more frequent than are chronic sinusitis of the ethmoid is more frequent than are chronic degenerative inflammations. As to the causes of a mucocoele there are two: it may be either caused by a chronic catarrhal inflammation of the mucous membrane lining the sinus, the ostium of which has become previously occluded; or it may be due to an occlusion of one of the ducts of the glands of the lining mucous membrane, and consequent dilatation of it. The contents of a mucocoele consist of epithelial cells, blood corpuscles, and fluid containing mucin.—*Medical Record.*

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#### QUININE IN URTICARIA.

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A very pertinent suggestion is that of Wolff, of Berlin, as referred to in the Boston Medical and Surgical Journal. He found that quinine had value in urticaria through trying it on his own six-year-old daughter. Then he tried it in six more cases, and with brilliant results in every instance. In urticaria, the writer says, there is, judging by the symptoms, an irritant which acts upon the vessel nerves, especially on those of the skin. It is to be assumed that this irritant is represented by a chemical substance that is generated in the intestinal tract. So much is common to all the theories of the pathogenesis of urticaria. According to the etiology it is possible, therefore, to obtain favorable therapeutic effects from the employment of different medicaments. Most cases of urticaria are surely caused by an intoxication, arising in the intestinal canal, an anaphylaxis, as has been maintained of late. Following Friedlberger's discovery that anaphylaxis is caused by the absorption of albumen from the intes-



tine, it is even possible theoretically that every albuminoid nutritive may produce anaphylaxis, i. e., in this case urticaria, and that a complete elimination of albumen from the diet, with the ingestion of only fats and carbohydrates for a time, is worth a therapeutic trial in obstinate cases of urticaria. A further argument for the anaphylactic nature of urticaria may be adduced from the successful use of chloride of lime and atropin in this affection. The writer thinks it probable that quinine may also prove of value in other affections that may be due to anaphylaxis. —*The Medical Fortnightly*.

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#### AN UNUSUAL FORM OF MUSCULAR CRAMP.

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Oppenheim (*Neurol. Centralbl.*, No. 19, 1912) observed a series of cases of a peculiar form of muscular cramp occurring in young people of both sexes, aged 8 to 14 years. The patients all belong to the Jewish race. He calls the disease "dysbasia lordotica progressiva," or "dysonia musculorum deformans." The muscles affected are chiefly those of the thigh, the pelvis and spinal column used for standing erect and walking forward. The characteristic symptoms are a marked "lordosis" or "lordo-scoliosis" of the lower thoracic and lumbar spinal column, with a definite declination of the pelvis. The legs show a tendency to an abnormal position, and the patient finds it difficult to stand. An attempt to walk increases the symptoms considerably, and the patient is sometimes obliged to rest his hands on his knees or support himself with a stick. He soon becomes exhausted by walking, and perspires profusely, his pulse increasing in frequency. The symptoms are chiefly connected with locomotion, and, when the patient is in a horizontal position, either disappear completely or are markedly diminished. On close examination some of the muscles showed a tendency to tonic contraction, while others were distinctly hypnotic. No paralysis was present, no electrical changes were found. Sensation and speech were normal. In certain points the affection resembled chronic chorea, and still more athetosis. The author remains uncertain as to the nature of the disease, but its progressive character leads him to think that mi-

nute changes in the central nervous system are at the root of it, and that these affect certain regions governing or influencing the muscle tonus.—*New Orleans Medical and Surgical Journal*.

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#### TREATMENT OF THE VOMITING COUGH OF TUBERCLE.

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Paillard (Journ. de Med. et de Chir.) concludes a thesis on the functions of the diaphragm with a study of the above conditions. Numberless drugs are in use, the patients changing the remedy every four or five days; the vomiting, temporarily arrested, returns more obstinately than ever. Chloroform water—used with success by Matthieu and Roux, though it has failed in the experience of many doctors—seems to give more lasting results than other drugs, but the time of administration is most important. It should be given immediately after the ingestion of food, before the fit of coughing begins. By calming the nervous excitability of the stomach the starting of the reflex is prevented. To the same end Lion gives 20 grammes of bismuth subnitrate diluted with two-thirds of a glass of water. Paillard insists on the necessity of rest after meals; exertion brings on breathlessness, which may sometimes cause vomiting cough. Rest ought to be taken in the right lateral decubitus, which has two advantages—the pylorus is in a position favorable to the emptying of the stomach, and there is the least amount of displacement of the left diaphragm. But the essential therapeutic point is a short inhalation of oxygen at the opportune moment. Pillard instructs his patients thus: "Have a bag of oxygen constantly at the foot of your bed. After a meal, when you feel the fit of coughing coming on, take up the bag and breathe a few whiffs of oxygen; the fit of coughing will not occur, or, if it does, it will be slight and you will not vomit; if there is any tendency for it to return some minutes later, breathe a little more oxygen. Above all, follow your appetite, and do not let the fear of vomiting restrict your diet. Do not forget that you ought to breathe little oxygen at a time, and that the same bag ought to last you at least four or five days." Under this treatment Paillard has found that the trouble disappears, generally at the first attempt. The result is lasting in



the great majority of cases if the inhalations are continued for some weeks; rarely (three times in thirty-two) the vomiting reappeared, but the combination of chloroform-water treatment with the demonstration was sufficient to effect a complete cure.—*British Medical Journal*.

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#### ON THE ACTION OF GELATIN.

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After the administration of gelatin as a hemostatic Dr. Vladimir Michl noted in a number of cases in which the patient had been greatly debilitated that a few days after commencing the administration of gelatin the general condition of the patients showed a surprising improvement. The high temperature fell to normal, the secretions from the granulating wounds became less, the granulations thus became firmer, more resistant, and the patients, who in many cases had been considered as lost, approached recovery.

Dr. Michl says in a communication to the *Wiener Medizinische Wochenschrift* for June 22 that he was in this manner lead to employ gelatin deliberately in various suppurating processes and that he now orders it regularly in all septic and septicopyemic diseases, especially in thrombophlebitic processes, and he has seen such remarkable results that he requests the more general administration of gelatin for the purpose of deciding whether his observations are based upon an actual beneficial effect to be derived from this substance.

Ten grams of gelatin are dissolved in 100 to 120 grams of water boiled for one or two minutes and mixed with a small amount of sugar and lemon juice. This amount is a daily dose which may be taken either at once or in the course of a few hours, cold or lukewarm.

Dr. Michl usually orders, in addition to the gelatin, hourly doses of a one- to two-per cent solution of collargol (one tablespoonful. He says that this mode of administration, which is very simple, is usually effective, and that he has rarely injected the gelatin solution subcutaneously or into the rectum. He further orders the administration of gelatin one or two days before

operation in cases where there is a suspicion of hemophilia or in operations which are sometimes attended by profuse hemorrhage. He suggests that it might well be given in such cases where there is cause to fear severe wound infection.

If it should be shown that gelatin has the power in some manner of strengthening the tissues, as is indicated by Dr. Michl, it would certainly form an extremely simple prophylactic and curative remedy which is not only taken easily but has in addition the advantages of a nutritive action.

Gelatin has long been used as a nutrient, especially in febrile cases, because it saves albumen, and the patients bear the strain of fever more easily and becomes less debilitated when they receive generous doses of gelatin. It would be interesting to act upon this suggestion of Dr. Michl and to report results.—*The American Journal of Clinical Medicine*.

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#### TOBACCO AND LUNG DISEASE.

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The statement that tobacco prevents lung disease seems to be true to a certain extent. It is clear that tobacco and tobacco smoke are antiseptics and germicides of considerable power, and that their action on the pulmonary circulation is useful in relieving or preventing any tendency to chronic congestion of the lungs. Many doctors in various countries have remarked the comparative immunity from pulmonary diseases enjoyed by workers in tobacco factories. There are also cases recorded (by Reuff) of persons who exhibited serious symptoms of consumption, such as emaciation, blood spitting, and cough, and who got rid of them all after working for a time in tobacco factories. Tassinari, in Italy, has proved by elaborate experiments that tobacco kills microbes, and he strongly recommends smoking as a protection against cholera. Visalli, during the influenza epidemic of 1889, noticed that workers in tobacco factories almost entirely escaped. The same thing was remarked in Genoa and in Rome. Tobacco smoking has also been recommended by some doctors in the treatment of consumption.—*Family Doctor*.

## OBSTETRICAL

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### SUPPRESSION OF CONVULSION IN ECLAMPSIA.

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In two cases Wallace tried the treatment advanced by Murray. The 25 per cent solution of magnesium sulphate was employed after sterilization. The dose was regulated by the body-weight of the individual patient, 1 c.c. being allowed for every 25 pounds of body-weight. A rough estimation of weight had to be made from height and bulk. The needle was introduced in the middle line between the third and fourth lumbar spines. In each case after injection an interval of freedom from convulsions ensued. In one case seven fits occurred during the seven and a half hours preceding injection, none during the subsequent seven hours. In the second case, six fits preceded the injection (three of them were severe) ,while none occurred during the following hours. Case 1 was an ordinary one of eclampsia ; the patient would probably have recovered in any case and the child might have been born alive. On the other hand case 2 was a severe one and the outcome was doubtful. Wallace feels assured that but for the two intervals of four and four and a half hours, respectively, a dead child would have been born.—*Journ. of the Am. Med. Assn.*

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### HYPOPHYSIS EXTRACT IN ECLAMPSIA.

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Krakauer tested the oxytocic action of this substance in a case of eclampsia in a young multipara of excellent muscular development. She had never been ill and the convulsions appeared without any warning. When first seen she was unconscious. It was only learned that she was not known to be pregnant over seven months and had a pendulous abdomen. Taken to the hospital, she received narcotics and chloroform, the spasmophilic state being extreme, along with wet packs. There were no signs of labor, and no fetal heart sounds were audible. Attempts were made to induce labor by rupturing the membranes and passing a soft catheter into the uterus. Dilatation was extremely slow,



and after 12 hours there had been but few pains and the os would only admit the finger tip. Hypophysis extract was now injected. The woman being still unconscious, the action of the pains was not very sensible, but in two hours the child was expelled dead. When consciousness was regained the woman, who had not expected her confinement for two or three months, could not realize what had happened. The child was mature, and it was impossible to fix the time of its death.—*Medical Record*.

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#### PREGNANCY AFTER ARTIFICIAL IMPREGNATION.

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Dr. J. Hirsch (Berlin. klin. Wochensch., Nov. 29, 1912) points out that Marion Sims was the first to devise a method of introducing spermatozoa directly into the uterus. He refers to the importance of mastering the technic of the procedure, since his six successes in the last nine cases treated. It was carried out in the home of the patient. The spermatic fluid was withdrawn undiluted from the condom by means of a dry sterilized Braun syringe. The syringe was warmed to about 38 C. by means of a metal blade attachment which was heated at one end by an alcohol lamp. The spermatozoa are more sensitive to heat than to cold. The uterus was grasped at the portio and drawn straight downward, so that the nozzle of the syringe would cause as little injury to the mucous membrane as possible. Previous irrigation of the vagina was avoided as well as any unnecessary manipulation. Only a few drops of spermatic fluid were introduced in order to avoid uterine colic. A tampon moistened with the remainder of the spermatic fluid was placed against the portio vaginalis. The woman was directed to rest in bed for eight to twenty-four hours. Before resorting to this procedure it is necessary to determine the caliber of the cervical canal and dilate it in case of stenosis, as well as to correct any existing retroflexion or other displacement. The presence of gonorrhea in either husband or wife should be ascertained and the spermatic fluid first examined for active spermatozoa. Artificial impregnation is preferably undertaken immediately after the cessation of a menstrual period, and not, as a rule, until the lapse of five years of sterility.

In one of Hirsch's cases, however, the attempt was made after three years of a barren marriage on account of the advanced age of the woman (36 years), with success at the fifth attempt. In conclusion, the author refers to the statistics of Rohleder that one-half of the 10 per cent of sterile marriages can not be relieved by the customary measures, and that accordingly in these artificial impregnation is to be considered, as it gives 33.5 per cent of success.—*Medical Sentinel*.

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#### WHEN IS THE HIGH FORCEPS OPERATION JUSTIFIABLE.

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Dr. James A. Harrar read this paper. He said that the extending of the indications for cesarean section had placed the high forceps operation on the defensive, many of our best obstetricians going so far as to deny it a place among the recognized methods of treating dystocia. When the forceps was used, as it so often was, to do what amounted practically to a cranioclasty, it was utterly to be condemned. The term high forceps was understood to indicate application of the instrument to the fetal head when its largest diameters were still above the plane of the pelvic inlet. The writer took exception to the statement, "Never apply forceps to the head above the brim." This might be a safe working rule to hand the general practitioner for his proper guidance, but in the hands of the experienced operator there were not a few cases where a baby's life might be spared or a mother's morbidity avoided by the judicious use of the high application. It was a major operation, not to be undertaken except by one well versed in pelvic obstetrical work. The bad results were usually due to faulty judgment in the selection of procedure. The operator then perverted his forceps delivery into a procedure destructive alike to mother and child. There should be ideally no such thing as a "hard high forceps" in the sense of brute force. These admonitions had been made before, but they would bear repetition. High forceps was never an elective operation. A common problem was the decision between version and forceps in deformed pelves of moderate degree. The fetal mortalities distinctly favored high forceps in the ratio of 17 to 25 per cent

at the best. The idea that it was easier to snap a head through a contracted pelvic brim with a version than with a forceps too often proved disastrous to the unfortunate head. It is valuable to divide contracted pelves of moderate degree into two classes, depending upon whether the head could be made to engage in the brim by suprapubic pressure, properly directed under anæsthesia, or not. If it would so engage it was a "workable contraction" either for spontaneous delivery or forceps. If it would not so engage it was a "dangerous contraction" and might demand pubiotomy, craniotomy, or even the performance of a cæsarean section. It was not the indication, which were few, so much as the situations which arose, in which it was advisable to apply forceps to the head above the brim, that were of interest. They saw so many cases when it was already too late to do the proper operation which should have been done had they been earlier in charge of the labor. There was nothing left to do but a possible forceps or a craniotomy. A used and abused uterus was inelastic and would rupture readily with a late version. Great aid was rendered in the simple flat pelvis by putting the patient in the Walcher position. Inertia uteri, in multipara, delayed dry labor in normal pelves, dystocia resulting from rigidity of the cervix, neglected presentations of the brow at the brim, were situations, illustrated by case reports, in which the high application of forceps was justifiable. Before applying forceps to the floating head, first be assured by suprapubic pressure that the head could be made to bite into the brim. If it should not so engage it was almost certain that it could not be safely delivered with forceps, except with the aid of pubiotomy. One should always desist from further attempts with forceps if after one or two moderate tractions on the instrument the head failed to enter the pelvis.—*Medical Record*.



## Editorial

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PUBLISHER'S NOTICE—The Journal is published in monthly numbers of 48 pages at \$1.00 a year, to be always paid in advance.

All bills for advertisements to be paid quarterly, after the first insertion of the quarter.

Business communications, remittances by mail, either by money order, draft, or registered letter, should be addressed to the Business manager, C. S. Briggs, M. D. corner Summer and Union Streets, Nashville, Tenn.

All communications for the Journal, books for review, exchanges, etc., should be addressed to the Editor.

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### IODINE STERILIZATION OF THE SKIN.

Painting the skin with iodine at the site of surgical operations for sterilization purposes has become very popular with surgeons. The method naturally appeals to the operator, as it is one that is always ready to hand, is quickly applied and apparently is efficacious in its results. Aside from the fact that the older methods of making the ante-operation toilet requires time, patience and thoroughness to insure results, and aside from the fact that the painstaking care with which this procedure frequently impresses the nervous system of the patient for the worse—the vigorous scrubbing the method entails with brushes and with towels necessarily produces an infinite number of minute traumatism of the skin, that instead of conducing to the removal of pathogenic micro organisms might possibly encourage their propagation and multiplication. An extract in the December number of *Monthly Cyclopaedia*, by W. M. Brickner, M.D., refers to the iodine sterilization of the skin, speaks of its superiority over the “scrubbing up” plan, and refers to some important points in its employment. A requisite is that the skin should be free from moisture at the time of its application. This writer says the official U. S. P. tincture—7 per cent should be used, though we use a 2 per cent alcoholic solution of the crystals. Washing of the parts should be done several hours before the operation, and before painting the skin, moisture should be removed with benzine, alcohol or ether. It is claimed that good results may be obtained

without the employment of any washing, as in lacerated wounds of grimy hands injured in machinery, etc. The iodine dermatitis is infrequent, except where vigorous ante-operative scrubbing has been employed. The method is contra-indicated in a few cases, as in hyperthyroidism, in instances of unusually sensitive skin, on the face and the genitalia. Undoubted, the method from its simplicity and ease of application, and its apparent efficiency in sterilization, has much to commend it and to render it popular with the profession.

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#### BRITISH MEDICAL ASSOCIATION SUED.

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This association, which has had bad luck with its damage suits, has been sued again. There were three candidates for a position in London. It was found that the salary offered was lower than it should be, so two withdrew. One Dr. Patrick Joseph O'Sullivan remained in the race and won out. The British Medical Journal in commenting on the case referred to O'Sullivan's professional experience and his relations with his partner, concluded by asking, whether the army, the land or the presumable land of his birth should be the subjects of condolence or congratulation on his absence from home. The plaintiff appeared in court and contended that the words of the article intended to mean that he was a person of slight experience and doubtful qualifications, and that he was disloyal to his profession and a disgrace to the persons with whom he had associated and a disgrace to his native land. The jury decided that the article was only a fair comment, and judgment was entered for the defendants.—E. S. McK.

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#### PECULIAR ACTION AGAINST A SURGEON.

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The patient had been anæsthetized with chloroform and the field of operation, appendicitis, washed with soap, ether, and alcohol, which were then wiped up with compresses. Now the patient had been afflicted with coxalgia in his youth, and the well-

known resulting deformity formed a hollow in the inguinal fold. In this fold some of the alcohol collected and remained unnoticed. The operating surgeon noticed a patch of acne from which he feared a possible infection and proceeded to burn it with the thermo-cautery. The collected alcohol caught fire, resulting in a severe and extensive burn. The patient brought suit for damages. The court appointed three experts to report as to whether the operating surgeon was at fault. They reported to the court that there was no fault on the part of the operating surgeon, attributing the accident to the deformity in the patient's hip. The court, however, did not heed the report of the experts, but ruled that the operating surgeon was liable at civil law for professional negligence, in that he was well aware of the patient's deformity, and consequently had erred in not taking precautionary measures. Damages to the amount of \$3,000 dollars were awarded. Had the surgeon been lax in his duty and not burnt that acne he would have probably escaped better.—E. S. McK.

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PHYSICIAN (MALE).

February 5, 1913.

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The United States Civil Service Commission announces an open competitive examination for physician, for men only, on February 5, 1913, at the places mentioned in the list printed hereon. From the eligibles resulting from this examination certification will be made to fill a vacancy in the Indian Service at each of the following places, and vacancies as they may occur in positions requiring similar qualifications in any branch of the service, unless it is found to be in the interest of the service to fill any vacancy by reinstatement, transfer, or promotion:

Navajo Agency (Tohatchi Boarding School), \$1,000 per annum.

Cheyenne River Agency, South Dakota, \$1,000 per annum.

Western Navajo Agency, Arizona, \$1,200 per annum.

Competitors will be examined in the following subjects, which will have the relative weights indicated:



<i>Subjects</i>	<i>Weights.</i>
1. Letter writing, the subject matter to be upon an assigned topic of medical or surgical interest) _	5
2. Anatomy and physiology (regional and minute anatomy, general physiology, the physiologic functions and relations of organs) _ _ _ _ _	10
3. Surgery and surgical pathology (general and special surgery, surgical diagnosis, pathology, treatment, and technic) _ _ _ _ _	15
4. Chemistry, materia medica and therapeutics (elementary questions in inorganic and organic chemistry, the physiologic action and therapeutic uses and doses of drugs) _ _ _ _ _	10
5. Bacteriology and hygiene (the technic of bacteriologic laboratory methods and the practical application of the principles of bacteriology and hygiene to prophylaxis and treatment) _ _ _ _ _	15
6. General pathology and theory and practice of medicine (the etiology, pathology, symptomatology, and treatment of diseases) _ _ _ _ _	20
7. Obstetrics and gynecology (the general practice of obstetrics, diseases of women, their etiology, pathology, diagnosis, symptoms, and treatment, medical and surgical) _ _ _ _ _	10
8. Training, experience, and fitness _ _ _ _ _	15
Total _ _ _ _ _	100

Applicants must be graduates of recognized medical schools. Students who are members of the graduating class of any recognized medical school will be admitted to examination, but their names will not be entered upon the eligible register until they furnish a certificate from the dean of the college showing that they have been graduated.

Statements as to training, experience, and fitness are accepted subject to verification.

Each applicant for a position in the Indian Service is required to be in good health, and must attach to his application a state-

ment concerning the number in his family and the number that will require accommodations at the Indian school or agency in case he receives appointment.

Age, 21 years or over on the date of the examination, but eligibles who are more than 40 years of age on that date will not be certified for filling vacancies that may occur in the Public Health Service.

This examination is open to all men who are citizens of or owe allegiance to the United States and who meet the requirements.

Persons who meet the requirements and desire this examination should at once apply to the United States Civil Service Commission, Washington, D. C., or to the secretary of the board of examiners at any place mentioned in the list printed hereon, for Form 1312. No application will be accepted unless properly executed, including the medical certificate, and filed with the Commission at Washington. In applying for this examination the exact title as given at the head of this announcement should be used.

As examination papers are shipped direct from the Commission to the places of examination, it is necessary that applications be received in ample time to arrange for the examination desired at the place indicated by the applicant. The Commission will therefore arrange to examine any applicant whose application is received in time to permit the shipment of the necessary papers.

Issued December 31, 1912.

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#### "MEDICATED COTTON."

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It is doubtless true that a too keen appreciation of wit is a detriment in the practice of medicine, and it often proves mischievous to allow oneself to give way to merriment.

The other day there came in to consult me a Mr. Cotton. He had a swollen superior jaw. The whole left side of his face was swollen. He looked painfully ludicrous. Had the other side been swollen it would not have appeared so comical.

I anointed my finger with Abbott's Antiseptic Oil and made an

examination of the inside of the mouth. I found no pointing of the abscess and no excuse for the knife. I applied some of the Oil on the gum and some on the inside of the cheek. I gave him some of Abbott's Acetanilid and Codeine Compound tablets and ordered him to take one every hour while in pain. I also ordered some of Abbott's Saline Laxative.

Just as he was leaving I said: "Mr. Cotton, if I were not afraid it would break your face I would perpetrate a pun."

He fixed his face in painful expectancy and lisped: "Perpetrate?"

Whereupon I said: "Mr. Cotton, you are now medicated Cotton."

The painful contortions of his face were heart-rending.

E. S. McKEE, M.D.

Cincinnati, Ohio.

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The National Conference of Hookworm Experts which met at Little Rock, Ark., last week elected the following officers for the ensuing year: Dr. Olin West, Nashville, Tenn., President; Dr. A. G. Fort, Atlanta, First Vice President; Dr. Sydney Porter, New Orleans, Secretary.

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Dr. A. L. Winston announces to the profession his removal from Memphis, Tenn., to Colorado Springs, Colo. Office: Suite 64, First National Bank Building. Special consideration accorded tuberculous patients.

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The visit by a party of German physicians to the recent International Congress on Hygiene and Demography has proven that a well managed travel study party of physicians can make a trip through a foreign country in a far more pleasant and profitable manner, and at less expense, than can be done by traveling alone. Clinics can be arranged in advance, lectures prepared and visits made to the best hospitals and health resorts, with the assurance of a hearty welcome from the leading medical men of the locali-



ties visited. For those unable to speak the languages of the countries on the continent, this disadvantage is reduced to a minimum and the benefits of the trip correspondingly increased by traveling with such a party.

The coming International Medical Congress, London, August 6-12, 1913, gives a splendid opportunity for organizing an American tour of this sort, and plans are now ready for a Physicians' Travel Study Tour, leaving New York July 3 for the most important capitals and health resorts on the European continent: Paris, Munich, Carlsbad-Marienbad, Dresden, Berlin, Nauheim, Wiesbaden, Cologne, Brussels, the Hague, Amsterdam, etc., ending with the week of the Congress in London.

The plan of this tour has been seen and endorsed by Drs. A. Jacobi, T. C. Janeway, Ch. G. Kerley, O. G. T. Kiliani, L. R. Williams, Wisner R. Townsend and others. Physicians interested in such a trip should write for further and more detailed information to

---      RICHARD DAVIES, M.D.

236 East Sixty-ninth Street, New York City.

## Reviews and Book Notices

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Thirty-ninth Annual Report of the Secretary of the State Board of Health of the State of Michigan for the Fiscal Year Ending June 30, 1911. Lansing, Mich. Wynkoop-Hallenbeck-Crawford Co., State Printers. 1912.

We acknowledge the receipt of this excellent report for the year ending June 30, 1911. It compares favorably with the preceding report of this progressive state board of health, and contains a great deal of valuable statistical information for the practitioner. The reports on the comparative mortality of various diseases in the state show tuberculosis to have claimed the greatest number of victims, with pneumonia a close second. The extreme fatality of tetanus is referred to in an item, which gave forty-six cases, all of which proved fatal. The volume is very interesting and instructive throughout and should prove especially valuable to all physicians interested in disease prevention.

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**Transactions of the American Otological Society.**—Forty-fifth Annual Meeting. Hotel Chelsea, Atlantic City, N. J., June 10 and 11, 1912. Volume XII. Part 3. Published by the Society. Mercury Publishing Co., Printers, New Bedford, Mass. 1912.

Volume XII of this interesting publication of the Transactions of the American Otological Society has been received. In looking over the contents and reading some of the papers we find much of extreme value to specialists, and a great deal of a valuable nature to the general practitioner. The society is to be congratulated upon the creditable manner in which the proceedings have been prepared and upon the flourishing condition which this report shows the organization to have. Every specialist of this important branch should have in his possession a copy of this volume.

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**Text-book of Ophthalmology** in the Form of Clinical Lectures, by Dr. Paul Roemer, Professor of Ophthalmology at Greifswald. Translated by Dr. Matthias Lanskton Foster, Member of the American Ophthalmological Society; Member of the American Academy of Ophthal-

mology and Oto-laryngology, with One Hundred and Eighty-six Illustrations in the Text, and Thirteen Colored Plates. Volume II. New York. Rebman Company, 1123 Broadway.

This is Volume II of a very excellent and instructive text-book in the form of clinical lectures delivered by the distinguished ophthalmologist, of Greifswald. The book is essentially practical, and is amply supplied with illustrations and a number of colored plates. The text is clear, concise and clearly understood. For the use of students and practitioners it will serve an excellent purpose as a guide and reference book. For the specialist in this department it is invaluable. The illustrations are for the most part original, and they add very materially to the usefulness of the book. The publishers are to be commended for having placed such a work before the profession in this country. The work of the translator is also to be highly applauded. We take pleasure in recommending the work to every medical man.

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**The Taylor Physicians Pocket Account Book.**—Convenient, Concise, Comprensive. Just the thing for the General Practitioner. No Ledger; No Posting; No Cypher Code; Meets all the Legal Requirements in Case of Suit. Entries Are Made with Such Care and Rapidity that their Entry is Insured.—E. S. McK.

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## Publisher's Department

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### "HOW TO START A RIFLE CLUB."

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A very interesting 16-page illustrated booklet has just been issued by the Stevens Arms & Tool Co., Chicopee Falls, Mass., entitled "How to Start a Rifle Club." This booklet tells in detail what the National Rifle Association has done for the encouragement of rifle practice in this country—incorporates by-laws, pointers on Shooting, how to build a rifle range, N. R. A. trophies and Medals. It also describes the famous Stevens "Semi-military" and "Armory Model" rifles, which have such a string of notable victories to their credit the past season. The various achieve-



ments of these target rifles are listed in detail. The cover of "How to Start a Rifle Club" shows in their actual colors, the flags of the six nations which have accomplished the most in educating the youths of their respective countries in the proper use of the rifle and in the formation of rifle clubs.

Every boy and every boy's father, guardian or school teacher should send for this splendid booklet at once. Write to J. Stevens Arms & Tool Co., Chicopee Falls, Mass., makers of the largest line of sporting firearms in the world.

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#### A DEPENDABLE ANODYNE.

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The uses of Papine are almost unlimited. In the main they are, however, diarrheal affections, such as gastro-enteritis, cholera morbus and infantum dysentery; diseases of the nervous system attended with pain, such as neuralgia, neuritis, hysteria, and locomotor ataxia; painful disorders of the utero-ovarian tract, as dysmenorrhea, uterine colic, ovarian neuralgia; and also other conditions attended by severe pain, such as biliary and renal colic, and the chest pains of pleurisy, pneumonia and tuberculosis.

Papine has also been strongly recommended in the treatment of diabetes. This product has the great advantage that it can be used without locking up the secretions, or inducing habit as in the unfortunate case with other opium preparations.

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The usefulness of good hypophosphates in pulmonary and strumous affection is generally agreed upon by the profession.

We commend to the notice of our readers the advertisement in this issue. "Robinson's Hypophosphates" is an elegant and uniformly active preparation; the presence of quinine, strychnine, iron, etc., adding highly to the tonic value.

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# NASHVILLE JOURNAL — OF — MEDICINE AND SURGERY

CHARLES S. BRIGGS, A. M., M. D., Editor

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## Original Communications

A PRIVILEGED MEDICAL CLASS—THE LATEST MOVE  
OF MEDICAL TRUST MONOPOLY—A WARNING  
TO THE PROFESSION, THE PUBLIC, AND  
ESPECIALLY TO STATE LEGISLA-  
TURES AND MEDICAL EX-  
AMINING BOARDS.

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BY G. FRANK LYDSTON, M.D.,

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*Professor of Genito-Urinary Surgery, College of Physicians and  
Surgeons, Chicago, Ill.*

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The attempt by certain medical monopolists to "corner" everything pertaining to medicine and surgery in the United States is so flagrant that it is marvelous that the rank and file of the profession does not wake up. Medical schools, health boards, medical journalism, medical publishing, medical advertising, medical appointments of all kinds; the Medical Octopus is after them all—and is likely to get them all, while the profession sleeps.

One might suppose that the Medical Department U. S. Army could not be made the playground of the Medical Octopus. Not so, however; in the near future I shall prove to the citizens of this country that the Medical Department of the Army is dominated by, and subverted to the base uses of, the dominant American ring of medical politicians. I ask the profession to read and carefully weigh the proof which I shall later submit.



I shall herein limit myself to the presentation of as pretty a little scheme of professional graft as ever has been sprung upon an unsuspecting public and long suffering profession; I refer to the establishment of a privileged class from the army, navy and marine hospital medical services,\* and the proposed attempt to add to this class the Medical Reserve Corps, U. S. A., and to further extend the privileges of all of these branches of the government medical services.

I am of those who believe that the army, navy, or marine hospital surgeon should be exempt from the license requirement for the practice of medicine only so long as he confines his work to his official duties. The various state laws provide for this. The Illinois law, at least, so provides.

WITHOUT A LICENSE NO MEDICAL OFFICER OF THE U. S. GOVERNMENT SHOULD BE PERMITTED TO PRACTICE AMONG CIVILIANS. WITH A LICENSE HE WOULD NOT BE PERMITTED TO PRACTICE AMONG CIVILIANS SO LONG AS HE IS IN OFFICE AND DRAWING A SALARY FROM THE GOVERNMENT. WHEN HE DOES SO PRACTICE, HE IS A GRAFTER ON THE GOVERNMENT, THE PUBLIC AND THE PROFESSION. A LICENSE SHOULD NOT BE ISSUED TO HIM WITHOUT THE USUAL EXAMINATION.

The impudence of those who claim undemocratic "special privileges"\* for government officials is monumental. Are the army, navy, or marine hospital services such excellent fields for medical training that medical officers of the government are entitled to "special privileges?" WHAT AN ENORMOUS EXPERIENCE GOVERNMENT MEDICAL OFFICERS HAVE IN OBSTETRICS, GYNECOLOGY, AND PEDIATRICS!

No government official should be permitted to do civil practice, as will be seen later, yet, it is gravely proposed, not only to permit him to compete with the civil practitioner, but to grant him privileges which are denied the latter! Once the medical officer—or former medical officer—is launched in private practice, he would be protected from competition by the rigid examination for a license to which would-be civil competitors are subjected.

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\*See 3 a. Ill. Med. Prac. Law, 1907. Still in force.

\*See letter from Surgeon General U. S. A., hereinafter presented.

The Medical Reserve Corps, U. S. A., was a scheme of the Medical Octopus by which it proposed:

1. To get its tentacles onto the army, and thereby creep close to the throne in Washington.

2. To get more political influence through the large numbers and wide ramifications of the corps, and more power by having more bribes to dispense, wherewith to win satellites and prestige. As I will prove, in a paper now in preparation, it has done these things most effectually.

THE FIRST BATCH OF APPOINTEES TO THE MEDICAL RESERVE CORPS OF CHICAGO, COMPRISED THE EDITOR-MANAGER-BOSS OF THE A. M. A. AND TWELVE OF HIS OFFICIAL FAMILY, ONLY ONE OF WHOM HAD EVER WORN ANY UNIFORM SAVE THE "COLLAR" OF THE A. M. A. EVERY LOCAL OFFICIAL OF THE A. M. A. IS NOW IN THE MEDICAL RESERVE CORPS ASSOCIATION OF CHICAGO, WHICH NUMBERS 112 MEMBERS, TO SAY NOTHING OF MEMBERS AT LARGE WHO HAVE NOT JOINED THE ASSOCIATION. THE FIRST PRESIDENT OF THE ILLINOIS DIVISION OF THE RESERVE CORPS WAS AN EX-PRESIDENT AND EX-TREASURER A. M. A. ITS PRESENT VICE-PRESIDENT IS A PAID EMPLOYEE OF THE A. M. A. WHAT PREVAILS HERE IS DUPLICATED IN EVERY STATE IN THE UNION.

As to the personnel of the Illinois Reserve Corps Association, its roster contains the names of the following: the Editor-Manager-Boss of the A. M. A.; two Ex-Presidents of the A. M. A.; (One a former Treasurer of the A. M. A.); the Assistant Secretary of the A. M. A.; the local Trustee of the A. M. A.; two Associate Editors of the A. M. A.; a former Trustee of the A. M. A.; two editors of subsidiary journals of the A. M. A.; the Chairman of the Committee of Public Health of the A. M. A.; the Chairman of the Committee on Education of the A. M. A.; (and Ex-Chairmen galore); a member of the Council of Chemistry and Pharmacy, A. M. A.; three Secretaries of Sections, A. M. A. IN BRIEF, EVERY CHICAGO MEMBER OF THE OLIGARCHIC RING, AND PRACTICALLY EVERY ONE OF ITS SATELLITES, IS IN THE ILLINOIS R. C. A.!

The army commissions held by the Medical Reserve Corps confer essentially the same rights and privileges as all other army

commissions, although the latter are earned by examination and the former are unearned. That the Surgeon General, working in conjunction with the A. M. A., wishes these privileges to be unlimited and unfair to the profession at large will be seen later.

*Commissions in the Reserve Corps are supposed to be issued after a rigid examination. The majority of the Chicago contingent were not examined at all—not even physically. Any examination which may have been given in most cases was a farce. So far as I can ascertain, only two were examined as is pretended to be prescribed by law, and these gentlemen were not examined in Chicago. The “examining board” in most cases was a single army medical officer, and the examination essentially consisted of “How do you do? What is your name? Good day.”*

N. B.—PART 14, MANUAL FOR THE MEDICAL DEPT., U. S. A., PROVIDES FOR AN EXAMINATION FOR THE MEDICAL RESERVE CORPS AS FOLLOW ::

#### MEDICAL RESERVE CORPS.

(b)

“The statement and certificate having been given and the diploma submitted, *the board* will then make a *thorough physical examination* of the applicant, *which must conform in all respects to that required of candidates for commission in the Medical Corps* (Par. 5 a).

“If any physical disqualification for the service is found the examination will be discontinued. *The findings and action of the board will be reported on Form 145 a, modified to suit the case.\**

(c)

“The applicant having been found physically qualified, *the board* will next proceed with his professional examination in the following subjects:

“Practice of Medicine, Surgery, Obstetrics and Gynecology, and Hygiene. *This examination will be oral and sufficiently comprehensive to determine whether, in the opinion of the board,*

“The “modification” depending, I presume, on the acceptability of the candidate to the A. M. A.—L.



*the applicant is qualified to practice his profession under the usual conditions of the military service. Should the oral examination in any subject be unsatisfactory, the applicant may be required to take a written examination therein."*

The profession will kindly notice the "jokers" in sections b and c. Most astounding! A report "modified to suit the case!" An examination for any army commission which, it is claimed, should give a man the right to obtain without examination a license to practice in any State in the Union!

The character and comprehensiveness of the "oral examination" are left to the discretion and judgment—and friendship, personal or political—of the "board"—a solitary individual evidently acting in most cases under instructions to make the examination a matter of form. *No reliable record is made or can be made of this, nor can it be reviewed, because there are no papers to show. Compare this farce with the examinations by the various State Boards,—of California, Illinois, or Minnesota, for instance. I would recommend the consideration of the foregoing to the medical politicians who are knocking the Illinois State Board of Health—especially to the subsidized editor of the Illinois State Medical Journal.*

The men who framed Par. 14 of the Manual for the Medical Dept., U. S. A., were either very unintelligent or very cunning. I fancy they were very cunning. I suspect that anyone with horse sense will recognize the fine Italian hand which inspired and helped to frame the section of the manual for the Medical Department referring to the Reserve Corps.

What has all this to do with the establishment of a privileged class? Read the following letter from Dr. Lewis and the official reply to an inquiry which he made of the Surgeon General, U. S. A.:

Chicago, Ill., January 10, 1913.

Dear Doctor Lydston:

In answer to your letter of December 15, asking me for information relating to the "license" status of the members of the Medical Reserve Corps, I beg leave to submit the answer of the

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(Italics mine, L.)

Surgeon General to my query. Relative to your questions as to the examinations for the Medical Reserve Corps, I will state that I, and many others within my knowledge, were not required to pass an examination of any kind.

Very truly,

Henry F. Lewis, M.D.,

First Lieut. Medical Reserve Corps, U. S. A.

Letter from the Surgeon General to Lieutenant Lewis:

War Department,

Office of Surgeon General.

Washington, January 7, 1913.

First Lieut. Henry F. Lewis,

Medical Reserve Corps,

4426 Lake Ave., Chicago.

Sir:—The Surgeon General directs me to acknowledge the receipt of your letter of the 2nd inst., and in reply, to say that officers of the Medical Corps and Medical Reserve Corps enjoy no *special privileges* nor exemptions under the law regulating the practice of medicine in the various States of the Union.\*

“This is a matter in which this office is very much interested and which has been under consideration for some weeks past. Inasmuch as the regular Medical Corps and Medical Reserve Corps of the Army are composed of *carefully selected men*.† It is believed that *their professional standing ought to be recognized in all States, and it is the intention that this matter shall be taken up with a view of securing legislation to that effect.*

“We rely on you and on every Medical Reserve Corps officer to assist in the good work. It is suggested that you take the matter up with the State Registration Board, submitting your commission in the Medical Reserve Corps, and also your diploma, and if possible get their reply in writing. We would be glad to hear from you further on the subject and to know just what reply you receive.

“It is also suggested that you get in touch with the other promi-

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\*This is an error. See 3 a. Medical Pract. Act, Illinois.—L.

†Which means, either selected by the A. M. A. or approved by the A. M. A.

ment Medical Reserve Corps officers in the State of Illinois and interest them in the proposition.

Very respectfully,  
(Signed) Chas. M. Gandy,  
Lieut. Col. Medical Corps, U. S. A.

UPON WHAT MEAT DO OUR MILITARY MEDICAL CAESARS FEED THAT THEY HAVE GROWN SO GREAT THAT THEY SHOULD BE EXEMPT FROM MEDICAL PRACTICE LAWS TO WHICH EVEN GREY HAired PROFESSORS MUST SUBMIT?

The naive manner in which the Surgeon General, U. S. A., states that, although army medical officers do not now enjoy "special privileges" they and the Reserve Medical Corps members ought to have them should appeal to those American citizens who believe in the principles of democracy and fair play. Speaking of fair play, where do the medical officers of the Navy and of the Marine Hospital Service come in? The Surgeon General does not mention them.

BEHIND THE LOVELY SCHEME OF THE SURGEON GENERAL, U. S. A., STANDS THE POLITICAL RING OF THE A. M. A., WHICH IS PRESCRIBING RIGID MEDICAL LAWS AND HIGH EDUCATIONAL REQUIREMENTS FOR EVERYBODY BUT THE OCTOPUS.

*The Medical Practice Act of Illinois permits the State Board of Health to issue, "at its discretion," licenses without examination to medical officers of the Army, Navy, and Marine Hospital services, and to those who have passed examinations for these services. See the "joker?" What a splendid opportunity for favoritism and graft! The present Board can be trusted, but if the gang that has for so long been trying to oust it ever gets control, what then? Even the present Board would better avoid the appearance of evil.*

The A. M. A. Medical Reserve Corps can not "put anything over" in Illinois, under the present State Board of Health, for a very peculiar reason. The President of the Board, Dr. Geo. W. Webster, understands the situation, as the following correspondence proves:

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(Italics mine, L.)



Chicago, Ill., December 14, 1912.

Dr. Geo. W. Webster,  
32 N. State Street., Chicago.

My Dear Dr. Webster:

I am interested in the method of formation of the Medical Reserve Corps, U. S. A. As you are a member of said corps, I take the liberty of asking you the following questions, which I trust you may do me the courtesy of answering:

1. Who constituted the Board which examined you for the Reserve Corps?\*

2. Were you submitted to a physical examination, and if so, what was the nature of said examination?

3. If a physical examination was made, was same made a matter of record?

4. Were you examined in medicine and surgery? If so, what was the nature of said examination and in what subjects were you examined?

5. Was the examination oral or written?

6. Was a record made of your examination and markings?

Trusting that you may see fit to give me an early reply to the foregoing query, I am,

Very fraternally,  
G. Frank Lydston.

Answer:

Dear Doctor Lydston:

I was not required to take either a medical or a physical examination.

Very sincerely,  
Geo. W. Webster.

Dr. Webster has since stated that he is not quite certain about the "physical examination." I suspect, however, that his memory is too good to have forgotten the details, had he been submitted to the stripped-to-the-skin, rigid physical examination required by the army regulations. (Note Par. 14 Manual for Medical Dept., U. S. A., already quoted.)

The President of the Chicago Medical Society, a member of

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\*Dr. Webster did not answer this question, but he and many others have informed me that the formality necessary to enrollment essentially consisted in reporting to the local army medical officer.—L.

the Reserve Corps, is nothing if not an apostle of "harmony," which, as he was elected on a "harmony" ticket, is but natural. I present his answer to my categorical questions:

December 26, 1913.

Dr. G. Frank Lydston,

Dear Doctor:

Answering your esteemed favor of the 14th, inst., I beg leave to say that, as far as I can remember, I complied with all the necessary requirements.

Very fraternally,

Jacob Frank.

I replied as follows:

Dear Dr. Frank:

Would you mind giving me an answer to my inquiry of the 14th inst.? You are at liberty to refuse to answer, but evasion is hardly in good taste or worthy of your intelligence.

Very sincerely,

G. Frank Lydston.

To this I received no answer. No comment is necessary save to state that Dr. Frank in a recent conversation, had assured me that he was not examined.

My associate, Dr. B. S. Rogers, Major and Surgeon 2nd Infantry, I. N. G., informs me that he also was not submitted to examination.

I wrote to a number of others who had informed me that they were not submitted to any examination, but received no reply.

*One gentleman who had already told me the facts, called me up by phone and said that he did not care to go on record as he was "afraid the bunch would get him" if he did. Two others, who had already told me the facts, also begged off on the ground that if they went on record it "might hurt their business." Is it not about time that the evil system which is sapping the manhood of the American doctor was overthrown?"*

PLEASE REMEMBER, MY GENTLE MEDICAL BROTHER, YOU WHO DO NOT LIKE CONTROVERSIES AND OBJECT TO MY "STRIKING THINGS UP ALL THE TIME," THAT IF YOU WANT TO CHANGE YOUR LOCATION TO ANOTHER STATE YOU MUST STAND AN EXAMINATION FOR

A LICENSE TO PRACTICE. REMEMBER, TOO, THAT THIS EXPOSE OF MEDICAL GRAFT IS OF VITAL INTEREST TO THE ENTIRE PROFESSION.

Is there not a privileged medical class? DO YOU BELIEVE, DOCTOR, THAT THERE SHOULD BE SUCH A CLASS? If not, get busy with your Congressman, and ask him to help break up the Medical Reserve Corps, U. S. A., secure a new law in place of the farcial one in Par 14 of the Manual for the Medical Department, U. S. A., and force the reorganization of the Reserve Corps according to the new law. Also ask your Representative in the State Legislature and your State Health Officers and Medical Societies to oppose the plan outlined in the letter of the Surgeon General to Dr. Lewis. Ascertain also, whether or not there is a "joker" in your State law, and if there is, try to knock it out.

The following rule bears upon the method of applying for admission to the Reserve Corps, U. S. A.:

*"Permission to appear before the board is obtained by letter to the Adjutant General of the Army, which must be in the handwriting of the applicant, giving the date and place of his birth, and the place and State of which he is a permanent resident. He must also furnish certificates, based on personal acquaintanceship, character, and habit."*

This is a huge joke. The method followed in Chicago was the selection by the A. M. A. ring, of names "acceptable" to themselves. No one who was *persona non grata* to the Oligarchy ever had an opportunity to submit an application "in writing." *Applications were made and acted on where the alleged "applicant" was ignorant of both the application and the action taken upon it.*

One of the requirements for admission to the M. R. C. of the army pertains to the applicant's age, as follows:

*"An applicant for appointment in the Medical Reserve Corps must be between twenty-two and forty-five years of age."*

N. B.—NEARLY 70 OF THE 112 MEMBERS OF THE CHICAGO ASSOCIATION ARE ABOVE THE AGE LIMIT. THE FOUNDATION OF YOUTH IS THE FAVOR OF THE A. M. A. RING. THE GHOST OF PONCE DE LEON WILL PLEASE TAKE NOTICE.

THE MEDICAL RESERVE CORPS, U. S. A., AS AT PRESENT CON-

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(Italics mine, L.)



STITUTED, IS A FARCE, AND MERELY A KITCHEN FOR THE MEDICO-POLITICAL TRUST MONOPOLY—A KITCHEN IN WHICH TO PREPARE ITS SCHEMES OF GRAFT, POWER, REVENGE AND POLITICS.

Graft is the acquirement of money, honors, property or any emolument without giving the *quid pro quo*. That the Medical Reserve Corps U. S. A. is used for political purposes, I will prove later. When the Medical Department of the Army is used by medical politicians for their own private ends, it is time for the great American citizen and the apathetic American doctor to "sit up and take notice." That this has been done, and that the Medical Department of the Army is at present under the control of the Octopus, I will shortly demonstrate beyond peradventure of doubt.\* I am curious to see whether the rank and file of the profession believes in the methods of the men who are trying to dominate and monopolize American Medicine. I am still more curious to learn whether or not the rank and file really likes to have their rights as American citizens trampled on.

If there are to be any special privileges, why not have a competitive examination and give everybody a chance? Is the Medical Reserve Corps, U. S. A., to be the only department of the medical service to which the politically chosen few can be appointed—and after a fake examination, or without any examination? And why not give the preference to men or military experience rather than to obstetricians, neurologists, pediatricians, ophthalmologists, and gynecologists? Military experience and a knowledge of military surgery are not mentioned in the examination requirements.

Instead of working for special privileges for its own immediate family and satellites, the A. M. A. political coterie should devote its attention to the legitimate endeavor to obtain reciprocity between the states. The present system is as absurd as it is unfair, and unworthy of the intelligence of a learned profession.

It remains to be seen whether the new administration will approve of the Medical Department of the army being made a kitchen for medical politics.

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\*I will also show that an attempt was made to bribe me to keep quiet.—L.

DO THE PRIVILEGED MEDICAL CLASS AND MEDICAL MONOPOLY ACCORD WITH THE PRINCIPLES OF DEMOCRACY AND THE SPIRIT OF TRUE AMERICAN CITIZENSHIP?

In conclusion, I would ask the medical officers of the army how they like the placing of the farcical Medical Reserve Corps on the same plane with themselves? Do they approve of the Surgeon General's A. M. A. political scheme? Do they really believe that even they themselves should enjoy special privileges—privileges denied to other medical men? IF SO, WHY?

Of this much Washington may be assured, viz.: Behind the protest which I have made herewith will stand several million fair minded American citizens and every physician in this country, in or outside the A. M. A., who is not a beneficiary of medical trust politics. *The new administration would do well to count these me before passing on what I have herewith submitted.*

AND THERE IS MORE EVIDENCE TO FOLLOW, ALL IN GOOD TIME.

32 N. State Street, Chicago.

## Proceedings of Societies

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### CINCINNATI ACADEMY OF MEDICINE.

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Meetings for January, 1913.

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Dr. M. L. Heidingsfeld read a paper on "The Role of Neosalvarsan in the Treatment of Syphilis." Dr. Heidingsfeld takes the ground that neosalvarsan has established itself as a very valuable drug in the treatment of practically all stages of syphilis. It is no longer a question of "Should it be used," but rather how large should the dose be, and how often should it be repeated. He advocated the intravenous method in all cases except infants and children, and a few cases in women where the veins are hard to find. In these cases use oil suspension or concentrated aqueous solution hypodermically. The frequency of dose depends on the stage of the disease. He said that in a number of cases where the neosalvarsan was given early, before a Wasserman was positive, that one dose might cure. He urges the use of freshly distilled water (not over twenty-four hours old). A Wasserman should be made every thirty days to have a proper knowledge of the progress of the case.

Dr. Ihle agrees in the main with Dr. Heidingsfeld, and said that the previous use of mercury had little if any influence on the effect of neosalvarsan. Every case should be carefully followed, and the progress of treatment gauged by the knowledge gained by the Wasserman test.

Dr. E. H. Shields complimented the essayist on his results, because other men had not gotten such favorable results. Stress was laid on the fact that syphilis was a chronic recurring disease, and that a Wasserman may be negative one month and positive the next, or negative for six or twelve months and then get positive. Then at times the giving of salvarsan would change a negative Wasserman to a positive one, which certainly modified the value of the test. He can't understand why foreigners get a larger per cent of cures. He does not believe it necessary to



have freshly distilled water. He thinks neosalvarsan has been a disappointment. His best results were in cases followed by mercury, and that there is a certain definite per cent of danger in the use of the new arsenic compounds. Saturation with mercury is firmly advocated where good results are desired.

Dr. H. K. Stoll wanted to know the effect, if any, of the local treatment by applications of the solutions of salvarsan.

Dr. Broeman believes salvarsan more powerful than neosalvarsan in same size dose. He thinks the essayist overestimates the curative value of neosalvarsan from a single dose. The extreme value attached to freshly distilled water, or the necessity for its use over absolutely sterile distilled water is not very easy to understand, nor has Dr. Broeman had any untoward symptoms from ordinary distilled water.

Dr. A. L. Knight said the brilliant results obtained from the use of salvarsan and neosalvarsan certainly mark their superiority.

Dr. L. G. Henn believes that failures are due to the peculiar pathology and location in the tissues of the spirochetæ, which are not reached by the neosalvarsan, owing to the more or less blood-free tissue in some of the lesions, due to change in the blood vessels from syphilitic infection and consequent degeneration.

Dr. A. W. Nelson claims that ordinary distilled water or freshly sterilized water is sufficient. The Wasserman test is valuable, but not practicable for average practice. He does not think it necessary for a man to be able to make a Wasserman before he should feel capable of using neosalvarsan. Nelson, as a rule, follows neosalvarsan with mercury.

Dr. Heidingsfeld, closing, claims that laboratory reports of Wasserman test are not as reliable as those made in his own office. He firmly advocates freshly distilled water to prevent untoward effects. He believes more harm has been done with mercury than with salvarsan. There is little or no difference between 606 and 914. He maintains that a Wassermann should be made every thirty days.

Dr. Robert Sattler presented a patient on whom Dr. S. P. Kramer had done a subtentorial decompression operation.

Dr. M. L. Heidingsfeld reported a case and showed xeroderma pigmentosa in a child three years old; etiology unknown. Inter-marriage and heredity were considered. The disease is prone to undergo malignant degeneration.

Dr. Wm. D. Porter delivered an address as retiring president of the Academy, followed by address of Dr. Charles A. L. Reed, president-elect. These addresses will be published by The Lancet-Clinic.

Dr. E. W. Mitchell, by request of the Chair, made some remarks introductory to the presentation of two instruments by the distinguished visitor, Dr. Lilienstein, of Bad Nauheim, who then demonstrated the two instruments on patients brought from the City Hospital for that purpose. The instruments were a phlebostatt for therapeutic purposes and a cardiophone for accuracy of diagnosis in interpreting the heart sounds. The phlebostat acts as an ordinary tourniquet with a manometer attached, and serves to bleed yet save the blood, or as a temporary relief of strain on the heart, by preventing the return of venous flow for intervals of two minutes with periods of rest, which gives the same effect as bleeding. The cardiophone is a storage battery instrument of the telephone type, by which sound is electrically conducted for some distance (one room to another) by means of insulated wires, and can be used during operations, anæsthetics, or where a patient is nervous, and can be better observed at a distance and overcome any possible neurasthenic effect produced by the contact examination.

On motion of Dr. W. D. Haines a vote of thanks was extended to Dr. Lilienstein for the presentation of his instruments.

On motion of Dr. Stewart the time was then extended in order that the new president, Dr. Reed, might consider some legislative points.

Dr. Reed then asked for a motion to have all the program committees appointed at the next meeting, January 20. The motion was made, seconded, and carried.

The Chair then, on motion duly seconded and carried, appointed a committee to consider ways and means to reduce the running expense of the Academy and the advisability of continuing the

publication of The Weekly Bulletin. The following committee was appointed: W. D. Haines, A. G. Drury, Edw. J. Pirrung.

On motion, seconded and carried, a committee was appointed to consider the best methods to use in presentation of specimens. The committee is Chas. T. Souther, W. D. Porter, C. E. Caldwell.

Academy adjourned to a very delightful social session, lunch, and smoker.

#### ANNUAL REPORT OF THE SECRETARY.

*Mr. President and Members of the Academy:*

The secretary desires to present the following annual report: A regular meeting has been held of the Academy of Medicine every Monday night, except during the regular summer vacation and holidays. The regular secretary has been present at all but three meetings, at which time he was out of the city. The year has been a very interesting and flourishing one for the Academy. There have been forty-two scientific papers read and discussed during the year. Collectively 190 members have taken part in the discussion of papers and case reports.

There have been seventy-two case reports read, representing a very much larger number of cases, as some reports were on a large number of cases. There were forty-two patients presented to the society during the year and forty-two specimens, representing a very large and varied class of surgical work of a general and special kind.

On several occasions we had addresses by distinguished visitors, notable among whom are Dr. A. B. Davis, of New York; Dr. O. G. Pfaff and Dr. Brayton, of Indianapolis; Chas. Richmond Henderson, of Chicago; Dr. L. V. Hamman, Johns Hopkins; Drs. Kassell and Healy, Lexington, Ky., and Dr. P. G. Heinemann, Chicago.

I desire here to especially thank the members of the program committees for their very prompt work, and to commend them for the very excellent, high-class programs we have been able to present. At no time have we had any trouble to obtain a very excellent and full program.

Case report nights have been noteworthy for the number and



eminently scientific character of the cases reported. Discussions have been as free as the time at our disposal would permit.

The Progress Committee deserves credit for having been instrumental in adding twenty-four new members, after so vigorous a campaign as was carried on during 1911 by their worthy predecessors.

Death has removed from us three of our distinguished members—Dr. E. S. Ricketts, Dr. A. B. Isham, and Dr. T. C. Minor.

There have been seven resignations, mostly for the reason that the members moved away and became affiliated with organizations in other States.

Total attendance for thirty meeting nights was 2,220, an average of seventy-four members.

New instruments and apparatus were presented by Dr. E. M. Baehr, Dr. W. E. Schenck, Dr. B. M. Ricketts and Dr. A. E. Osmond.

We have had two annual reports from the Milk Commission presented during the year, one on May 6, 1912, up to July 31, 1911, and one on December 2, 1912, up to July 31, 1912.

There was one special meeting called by the president to pass suitable resolutions on the death of Dr. Edwin S. Ricketts.

Two joint meetings were held, one with the First Councillor District Society and one with the Ohio Valley Druggists' Association.

The Bulletin has been published weekly, and an effort has been made to have it contain brief extracts of papers, case reports, and discussions. We have adhered strictly to the scientific part of the discussion; nothing of a personal nature has been given any space in The Bulletin. It will be appreciated by the editor if essayists will submit short abstract of their papers for The Bulletin.

Chas. T. Souther, Secretary.

#### ANNUAL REPORT OF BOARD OF TRUSTEES.

Dr. Zinke reported that the trustees are unable at this time to make a report because of the fire at the Carlisle Building. The branch of the Provident Savings Bank and Trust Co. have the

papers in the safety vaults, which can not be reached until the ruins are cleared. Report will be made later.

The President, Dr. Charles A. L. Reed, read the names of the regular committees to be appointed by the Chair and briefly outlined the duties of the various committees.

A report was read by the committee appointed to consider the best plan to use in the presentation of specimens, as follows:

"Your Committee on Presentation of Specimens begs leave to report as follows: We advise that a suitable table be prepared for the reception of specimens, and that the exhibitors be requested to place specimens on the table at least fifteen minutes before the Academy convenes. Each specimen shall be accompanied by a card on which shall be written a brief history of the case and description of the operation and signed by the exhibitor.

"Further, that the by-laws of the Academy (Article V, Section 2) be so amended as to read:

#### ORDER OF BUSINESS.

"(1) Reading of minutes of previous meeting; (2) miscellaneous business; (3) reports of regular committees and action thereon; (4) presentation of patients; (5) not later than 8:45, regular paper of the evening shall be read and discussed; (6) unfinished business; (7) case reports; (8) discussion on specimens other than by exhibitors."

On motion, seconded and carried, the report was received. Action deferred until second reading, two weeks later, February 3, at which time the matter of changing the by-laws will come up.

Committee appointed to consider ways and means to reduce the running expenses of the Academy and advisability of continuing the Weekly Bulletin reported as follows:

1. We advise the Weekly Bulletin be continued. Suggest, as a means of helping to defray the expenses, that a few advertisements be carried in The Bulletin.

2. That the dues of the Academy be \$5 annually, from 1914 on, instead of \$4.50.

On motion the first recommendation was accepted. The sec-

ond was received to be discussed on February 3, at the second reading, as it could only be acted on after a second reading.

Dr. Martin H. Fischer presented the work of Dr. Kupka, on the transplantation of ovarian tissue from the female to the castrated male guinea pig, showing influence on the genitalia and mammary glands of the male. After two weeks the change is noticeable. The mammary glands of the male pigs get larger, the animal reduces in weight, the coat gets softer and the animal assumes the characteristics of the female. After six or eight weeks, the change reaches its height and a retrograde change sets in.

On motion of Dr. Pirrung, the 8:45 time was extended to allow the presentation of specimens.

Dr. C. E. Caldwell presented a specimen of breast tumor, removed from a woman twenty-eight years old. Gross pathological appearance was that of a sarcoma with cystic degeneration. No sections had as yet been made.

Dr. W. D. Haines reported briefly a case of ulcer of the stomach of a rare type, having probably perforated, and nature protected the area by applying a plug of omentum. Excision did not show any perforation, simply large indurated ulcerated area down to serous coat.

Dr. Lange presented some X-ray plates of cases for Dr. Haines, showing very extensive arborized or tree-like exostosis of the femur; also a case of osseous degeneration of the lower end of the ligamentum patellæ and periarticular tissue about the knee-joint.

Dr. George B. Twitchell read a paper on "Intubation," reviewing briefly the history of the operation from its infancy to the time of the introduction of antitoxin, and comparing the pre-antitoxin work and results with the operation since, showing in a very graphic way how the whole picture had changed. He called attention to the necessity of selecting the proper sized tube for the patient, regardless of the age of the child. He claims that when a tube is repeatedly coughed up that it usually means the tube is too small. He spoke of time limit for leaving the tube in; two weeks being about the limit, and forty-eight hours the minimum time for removing. He compared the relative value of tracheotomy and indicated where both procedures might be necessary,



and that intubation was at times necessary to tide over, even after the removal of a tracheotomy tube. He believed that intubation with tubes of increasing size would overcome some of the tendencies to stricture.

Dr. Samuel Iglauer discussed the paper, saying his experience was only since the use of antitoxin, and that, where intubation was difficult, we now have the direct bronchoscopy method, which may be used in certain cases where the diagnosis was uncertain and the clinical appearance was not that of diphtheria. Frequently, where the case is urgent, we have little time for action and must proceed at once. He advised that one always be prepared to do a tracheotomy in all cases where such an emergency might arise. He reported a number of interesting cases that have come under his care.

In conclusion, the Chair desires to urge that the influence of the medical profession in promoting the welfare of the community can be made effective only through the earnest work of the various committees. They have a serious purpose to accomplish and in no instance should any member of a committee accept his or her appointment in a purely perfunctory manner. If any member who has been appointed upon a committee this evening feels that he or she can not discharge the duty assigned, a declination of the appointment is cordially solicited. Each chairman of each committee is requested to call a meeting of his committee during the ensuing week, agree upon a plan of action, and report the same at the meeting of the Academy to be held January 27.

Charles A. L. Reed.

Dr. B. F. Lyle reported for the Committee on Public Lectures, that the committee had a meeting and discussed ways and means; and they desire to submit names to the chair to be added to the committee to increase size of said committee. They further report progress.

Dr. Charles A. L. Reed brought up the matter of National secretary of Agriculture before the Academy, and suggested the advisability of the endorsement of Dr. Harvey W. Wiley for this position in President-elect Wilson's cabinet. The matter was referred to the Committee on Legislation.

The first regular paper was read by Dr. Sidney Lange, on "Serial Radiography of the Stomach, with Lantern Slides and Cinematographic Demonstrations." Dr. Lange took up the history and development of X-ray work of the stomach, and showed a large number of slides to illustrate his personal work and experience. He considers the bismuth shadow very reliable as to diagnosis when a series of plates were properly interpreted. His experience shows that from thirty seconds to three to five minutes time between each exposure gives a very accurate idea of the peristalsis of the stomach. He has not found it necessary to take the pictures so close together. As many as thirty plates for one case are sometimes necessary. A moving picture film was shown at the conclusion of the paper to illustrate the peristaltic cycle.

Dr. Percy Shields read the second paper, on "Infiltration and Induction Anæsthesia." Dr. Shields read a very excellent paper on local anæsthetics. Drawings were presented to show some idea of the special technique. Statistics from foreign hospitals were given to show the increase in the use and application of local anæsthetics, ranging from 6 per cent in former years to 40 per cent in 1910 in some hospitals. Novocaine,  $\frac{1}{2}$  per cent solution, was advised to be used as a nerve blocking and infiltration agent (using sterile water as a vehicle, as any alkali alters the value); 1 per cent solutions may be used for direct use in nerve sheath. As much as two to eight ounces of a  $\frac{1}{2}$  per cent solution does no harm and is not toxic.

The third paper was read by Dr. Moses Salzer, on "Demonstration of Intratracheal Anæsthesia Apparatus." The apparatus of Dr. Salzer was compact, complete, and cost about \$30, with motor and blower, all complete with case. It has been found ample for use on the human as well as on animals. The principle is the same as the apparatus presented by Ricketts in 1912.

Dr. Goodrich B. Rhodes also presented an apparatus that he had been using for intratracheal anæsthesia in animals, which was similar to the one presented by Dr. Salzer. Dr. Rhodes said the field was limited, but that it had a definite place in surgery.

## Selected Articles

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### ARSENIC IN THERAPY.\*

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By W. F. BARCLAY, M.D., Pittsburg, Pa.

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Medicine, in its history, has been slowly but certainly progressive. It has in its progress been studied, considered and reconsidered in the continuous exaction of scientific truth. The decades of our professional lives have added line upon line, here a little and there a little, making medicine a more certain system of healing the sick. We are not prepared to criticise the knowledge and skill of the past centuries of the profession of medicine, but, in order historical studies, approve the work of those who have preceded us and have left monuments and mementoes of good done for suffering humanity.

Man's work for man assumes a more brilliant aspect in human effort in retrospective consideration of scientific medicine. Advances in medicine are not the ephemeral epochs of a day, but the patient studies and advances of centuries. It is pleasant and instructive to refer to the pathfinders in the profession of medicine. The list is so long that time forbids reference to only a few of the earlier physicians who did so much for God and man in the amelioration of human suffering: Galen, Aristans, Paracelsus, Vesalius, Servetus, Pare, Cavendish, Steele, Hunter, Jenner, Laennec, Semmelweis, Schieden, Schwan, Darwin and a large number that have followed in the footsteps of the founders of medicine. The fundamental principles in medicine were established centuries ago in the establishment of the basis of scientific study of anatomy, physiology, obstetrics, surgery, theory and practice of medicine, chemistry and toxicology.

Time has not added much to that which was known and written in the centuries that have been chronicled in the past. We have a great deal to inspire and encourage us in a continuous

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\*Read before the Mississippi Valley Medical Association, Chicago, Ill., October 22-24, 1913.



warfare against disease and death in doing something for the prevention and cure of the ills that make up human complaints. The physical and psychic complaints of mankind are varied and mysterious and there is much that is almost past finding out. Each year adds something of supposed or real value in advancement of medical science; not much that withstands the crucial test of scientific study and investigation. The fortune of finding a pearl in the conglomerate mass of that which is presented and protecting the originator from theft and piracy is becoming more hazardous to originators in their reward for labor done in scientific medicine.

This introduction to a study of arsenic in therapy may seem not in place, but the eclat of investigators in arsenic, chemic and therapeutic science, affirms the wisdom of more than passing notice of some claims to more study and consideration of arsenic in therapeutics than has been given to any other remedial agent.

The claim, though not our fault, of one man having originated more than nine hundred preparations of arsenic intended for medicinal use and the introduction and unusual exploitation of a number of them, seems to justify our careful and serious consideration of the claim set out: That a large number of lives have been sacrificed and many temporarily and permanently injured in the mad rage and commercial enterprise shown in the want of due care and precaution of truth in inducement and recognition in the sale of a dangerous remedy at an extortionate price. As the profession of medicine has slowly recognized the truth in the drama, another—neosalvarsan—is announced, that may commend itself to consideration of the profession of medicine. Personally, I have given more than thirty-three years of study in the use of arsenic in therapeutics, and, in 1893, announced various compounds of arsenic that have been tried out and known not to be dangerous to life and health.

Not a single accident or one death has occurred from the use of these medicines, but large therapeutic advantage has been attained in treatment of diseases amenable to their use. It is not possible, even under present advanced scientific means of observation, to apply medicines and truthfully report permanent re-

sults, and it can not be certainly affirmed that such results are not fallacious.

The chemic acumen and knowledge essential is not entirely of foreign birth or education, but is to some extent indigenous in the United States. The foreign commercial estimation of physicians has accentuated the subversive and progressive commercial imposition that has caused this country to be a place of fraudulent exploitation and sale of worthless and injurious medicines. The coal tar derivatives of foreign origin and manufacture have done untold harm in the United States, have killed thousands and, at the same time, were labeled non-poisonous and not dangerous to life. Too little attention is given to the introduction of new remedies in their action on the body and misstatements lead up to inordinate use and abuse of them in treatment of diseases. Aspirin is a fit illustration of a dangerous remedy used in the treatment of rheumatism without even a hint as to care that should be exercised in its use. It is essential that attention be directed to the large number of dangerous medicines to life and health, as the profession of medicine, as a rule, is inconsiderate in examination of medicines that are of German origin and manufacture.

The immediate and remote results from the use of arsenic are of vital interest, since the introduction of new preparations of arsenic in chemic form are not well understood, nor the immediate or remote action in poisonous and fatal results comprehended and reported. The latent action of arsenic in impairment of functions and sudden deaths are of immense scientific interest in postmortem investigations. There is a serious lapse of reports on the part of those immediately interested in the manufacture and use of arsenic in the commercial introduction and exploitation of a dangerous preparation of medicine for the use of which unwarranted claims have been promulgated and much injury done to the unwary victims of its unauthorized use and abuse in treatment of syphilis and other diseases. The highway of centuries in the pathway of a disease, which has destroyed and depopulated the people of nations even to the third and fourth generations, is marked by the landmarks of the lives and services

of the best physicians, living and dead, in the profession of medicine. Here and there, from the time of the first account of syphilis until the present time, men of genius and learning have ventured to promulgate new theories in the etiology, pathology and treatment of syphilis. Hunter taught the dual theory of syphilitic infection, and it is yet a serious question as to the nature of true and false infection, soft and hard chancres. I sat for months at the feet of Bumstead, of New York, under his instructions, and I know he failed to differentiate the true from the false infection in his clinics at Blackwell's Island. In fact, he did not know a soft or hard chancre when he saw it, if such distinction existed and could be differentiated.

Mercury has stood the test of ages in its use and abuse, and results have been recorded in the history of medicine. More physicians believe that syphilis is an incurable disease than that it is certainly amenable to any known medicine. We understand and know that syphilis can be modified in its course and arrested in its manifold manifestations, but, too often, the latent results disprove the most sanguine prognosis. I am not prepared to state "once a syphilitic, always a syphilitic," but, after more than forty-six years' experience in medical practice, I am confounded and amazed at any physician asserting that he has discovered the *summum bonum*, or the *sterilizatio sterilisans* of the body from the spirochetæ, or the supposed germ of syphilitic infection. In a long experience in the treatment of syphilis, mercury alone in varied combinations has modified and removed syphilitic manifestations. The restoration of normal health is the paramount evidence of cure of syphilis. The restoration of health emphasizes the value and efficacy of all treatment of syphilis. Time alone justifies conclusions for the basis of reasonable opinion that establishes final satisfaction of freedom from the cure of syphilis, let it be what it may, from which mankind has suffered for ages. The oft-recurrence of the disease in its varied forms, when opinions and assurances had practically been the means that had caused dismissal from the page of recollection, bids care and caution that precludes mistake. The experience of decades in the practice of medicine prepares physicians for candid, honest medi-



cal practice which avails in public benefit and estimation of the profession of medicine. Not a little in medicine is fallacious, needs reconsideration and revision. The mistakes in medicine tend to skepticism in the profession and more especially amongst the people who look for and expect the best that medicine affords in prevention and cure of disease. The medical profession is not consistent in its tenets in recognition of its scientific effort and advancement or in its recognition of advances in medicine. The mendacity of appropriation of that which morally, legally and ethically belongs to another, precludes the rights of justice and equity. I condemn and disparage all who in any manner appropriate that which rightfully belongs to another, more especially in the profession of medicine. It is not consistent to proclaim preëminence in a code of moral excellence in beneficence and abridge the just rights of others. The introduction of original observation in medicine is more than reasonable beneficence. It is attended with vast research in time essential to accurate observation, in collection of facts and data sufficient to warrant announcement of origination in therapeutic discovery and advancement in medicine. Medicine is limited in its progress by exploitation of injurious and worthless medicines manufactured and foisted on the profession of medicine for commercial purposes. Much harm is done to the sick, and the profession is injured by the use and abuse practiced by manufacturers of medicines. It is a legitimate field of human effort, in fact scientific effort, but not of commercial enterprise, always for advantage in dishonest empiricism.

The numerical announcement of arsenic in varied forms is of no scientific interest or advantage if not accompanied with careful and honest scientific investigation in therapeutic advantage in medicine. It has not been the fortune of Ehrlich to discover the virtue in scientific chemic combination of arsenic that is most useful in medicine or to place his name in medical research and discovery beyond the realm of suspicious adventure. The apparent effort in exploitation on the part of Ehrlich and the physicians who have made unqualified statements in regard to "606" bears evidence of unqualified fraudulent intention to mislead the

profession of medicine. I am now well satisfied, after careful study and observation, that arsenic uncombined has never cured one case of syphilis, but modifies the disease and masks its manifestations for variable periods of time. Arsenic, like its congener, modifies the general manifestations of syphilitic infection, but the disease always recurs, and, as a rule, in a short period of time. No physician who has had experience in the treatment of syphilis ventures more than a qualified opinion in the prognosis of syphilis. The barren statement of Ehrlich is not sufficient to mislead careful men in the profession of medicine. The rapid modification of the manifestation of syphilis will mislead the inexperienced and careless observer, and more especially the dishonest quacks and charlatans. Salvarsan is a facile remedy to mislead and impose upon the unfortunate sufferers of syphilis.

The accidents that have occurred from the use of arsenic are inexcusable and appalling. Just why those physicians who have caused destruction of life and impaired health are not held accountable, morally, and legally, surprises and astounds physicians who care to render account for mistakes in medical practice.

The establishment in the United States of foreign fraudulent monopolistic medical productions by purveyors under the protection of law is a more certain protection than is afforded to American citizens. It is not consistent with natural physical law that retention and accumulation of that which is taken into the body is not consonant with living economy in furtherance of normal physical life. The repair and waste in physical life must be consistent with natural physical laws under varied environment.

The continued study of arsenic for over thirty-three years enables the formation of conclusion of facts that are interesting in determination of data that is a continuous advancement in therapeutic science. The results attained are sufficient to qualify and establish statements that are real and defensible in research work.

More serious statements may disprove and annul fictitious claims in medical science calculated to mislead and ultimately disparage scientific proof. Accidental discovery in medicine is not evidenced in historical records in medical science, but rather conscientious research avails in establishment of lasting benefits

in amelioration and cure of disease. Time must establish the accuracy of claims set out in announcement of advantages derived from unusual medical treatment; immediate and remote results must determine the benefits derived from medicine used in treatments of diseases. The accumulation of arsenic in the body and its poisonous action is a menace to life and health. The elimination of arsenic through the various emunctories of the body, when it has accumulated in the tissues, has defied chemic and therapeutic skill in medical science. The problem solved, then, arsenic is a safe and useful medicine that has a definite and positive action.

The intimate study and observation of arsenic in definite combination that can be administered in doses sufficient to insure its benign action, I accomplished over five years ago in a definite chemic formula. One-sixteenth of a grain of arsenic to each ten drops has solved the ultimate expectation in medicine in its therapeutic results. There have been practically no unpleasant effects from its administration, immediate or remote. It acts as a powerful eliminant and tonic. The functions of the body are excited to an unusual degree in their equilibrate performance of their eliminative activity. The skin, the kidneys, the salivary glands, the bowels and the entire excretory system of the body is in unusual and constant state of hyper-activity. The powers of waste and repair are stimulated to such a degree that increased appetite and assimilation of food add to the general tone and increased nutrition of the entire body. The vascular system assumes a normal circulation of the blood and congestive conditions are dispersed in equilibrate circulation of the blood and normal warmth of the extremities with general comfort in healthy conditions consistent with vital action, vigor and strength. The consistent results have been in continuous study and notation of facts of care and treatment of diseases. More especially in diseases of the vascular system, arsenic has been of great advantage. The condition known as sclerosis, or hardening of the blood vessels, is gradually removed by arsenic in combination more certainly than by any other remedy. Arsenic in combination with gold, as in arsenauro, is a remedy of all medicines useful in treatment of hemorrhagic effusions which cause paraplegia, hemi-



plegia, and all diseases arising from vascular degeneration. The continued use of arsenic or arsenauro in tabes dorsalis is of more value in arrest and cure of this disease than any other known medication. We understand that destruction of the nervous centers, partial or entire, is irreparable, but we know that arrest of the disease is possible and the disease itself curable. Persistent, prolonged use of arsenauro is a certain curative remedy, and no injury arises from its use. Arsenic in a more recent combination is a still more useful preparation of medicine, and illustrates the benign action of arsenic in combination when compounded to insure its ready and prompt elimination from the body without semblance of its poisonous action, immediate or remote. Over five years ago I used this compound of arsenic in treatment of syphilis, and accepted the results obtained as the ultimate solution of treatment and cure of this disease.

Further observations of patients taught me that the subsidence of lesions of the skin and mucous membranes was transitory and the disease recurred. It seemed the disease was in arrest and resumed its activity at the point in its apparent arrest with greater activity and virulence. It is a question of serious moment if arsenic should be used at all in the primary and secondary stages of syphilis, but rather, if at all, like iodine in the tertiary stage. I had used large doses of arsenic in treatment of syphilis prior to Ehrlich's announcement, and was in a position to look upon his claim with incredulity. In a paper published in *The Lancet-Clinic*, I warned the profession of medicine against Ehrlich's claims, which has recently been approved by the profession of medicine as timely. The compound used by me was originated over five years ago, and, since that time, its continued use teaches me that enormous quantities of arsenic are not advisable or reasonable, but injurious and harmful to the sick. I have administered one-sixteenth of a grain of arsenic, three or four times daily, without observing any unpleasant results from its use. I am confident if it had not been rapidly eliminated serious results must have followed its administration. I begin with five or ten drops, three or four times daily, and have not observed that increased dosage is advantageous. The dilution of medicine en-

hances its absorption, hastens its action and elimination. It is possible for the body to tolerate a limited quantity of arsenic for a short time without toxic effect. It is therefore important to facilitate its elimination. The similarity in the action of arsenic and mercury on the body and the toxic effects bear a close analogy, and it is true that both are readily cumulative and toxic. The excretory glands are over-excited in elimination, and the poisonous effects plainly visible in engorgement and tumefaction of the glandular system. The vital power to eliminate poisons plainly indicates systematic toleration. The rational conclusion in therapeutics plainly indicates rapid elimination of arsenic in medicine and its accumulation in the body its tolerance.

The poisonous and injurious effects of arsenic in medicine induce peculiar susceptibility to its action and intolerance. The tolerance of mercury is limited by its poisonous effects which are permanent. The same observation is true of arsenic, and precludes its use and beneficial administration after its abuse. It is a well-known truth, based on actual observation and experience, that mercurial poisoning of ptyalism induces intolerance and precludes the use of mercury in treatment of diseases. The susceptibility to the poisonous effect of mercury after toxicity has been induced forbids its further use even when it is indicated. The intolerance is manifest in disturbances in the entire digestive system, in loss of appetite, salivary excitation, increase in salivation, diarrhea, malnutrition, impaired metabolism of the blood. A like tolerance of arsenic is induced by its misuse and abuse even of a more serious character in its immediate and remote effects. There can not be a question as to the evil results that follow the abuse of arsenic in reports and facts made known and accounts given to the profession of medicine by physicians capable to observe and make accurate observations. The mention of a positive conclusion is that arsenic combined so it can be used in medicine without poisonous or injurious effect is chemic and therapeutic scientific skill in medical science. Excessive dosage without rapid elimination is dangerous to life and health and of no therapeutic advantage. Mercury is analogous to its congener, arsenic, in treatment of syphilis, and is the same of medical treat-

ment in lasting permanent results. Arsenic, like iodine, modifies syphilitic manifestations promptly, but never cures the disease. Arsenic in the treatment of all skin lesions and diseases of the mucous and serous membrane is of great advantage and gives prompt and permanent results. Arsenic in treatment of rheumatism is a specific in chemic combination which insures rapid elimination. No remedy is of more scientific interest and less understood by the profession of medicine.—*The Lancet-Clinic*.



## Extracts from Home and Foreign Journals.

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### SURGICAL

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#### RETROCECAL APPENDICITIS.

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Dr. Jabez N. Jackson( of Kansas City, Mo., described four separate anatomical subvarieties of the general postcecal type. (1) The appendix, possessing its usual mesentery, was only distinctive in the fact that it ran upward along the outer side of the colon which overhung and confined it in the limited peritoneal space external to the colon. (2) Another type ran upward external to the colon under cover of the peritoneum of the posterior parietes which formed its investment, usually incomplete, on its posterior circumference, and even though complete not furnishing a mesentery proper. (3) Again, he had found the appendix running up along the external wall of the colon itself and invested by its proper tunic and likewise without mesentery. (4) In the fourth type the appendix ran upward directly behind the colon beneath which it was buried in connective tissue entirely, and had no direct peritoneal investment whatsoever. In the retro-peritoneal type we might permit embolic infection of the liver with multiple abscesses entirely beyond any hope of relief by surgical means or otherwise. He would, therefore, emphasize the need of early diagnosis and early removal of the appendix as particularly indicated in this anatomical type of appendix.—*Medical Record*.

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#### NERVE GRAFTING.

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Duroux reviews the history of nerve grafting, stating that the first successful work of the kind was done in France in 1870 (Philippeux and Vulpian), but Albert in 1876 reported the first successful nerve graft in man. Duroux then gives an illustrated

account of a case in which he successfully bridged a gap of 15 cm. in the median and ulnar nerves with a graft from the sciatic of a dog. This was the third operation that had been done on the nerves after they had been severed by a deep transverse cut in an affray a year before the grafting operation. He tabulates the details of twenty-two cases of nerve grafting from the literature. In his own case sensibility returned in the hand and fingers within a month. The motor functioning, however, although satisfactory, is far from perfect, probably on account of the months of atrophy of the muscles before the operation, the inflammation of some of the joints, and the results of the ligation of the brachial artery which had comprised the nourishment of the tissues to a certain extent. As a rule, grafts from the same species are preferable. The slowness with which the sensibility and motor functioning return is striking: in a very few of the cases on record was the interval so brief as in his own case. From the sensory point of view the outcome is almost perfect. He ascribes his success to his care to preserve and implant with the graft all its surrounding cellular and vascular tissue. The nerve graft was thus nourished by its own tissues until it had taken root in its new home by adhesions and newly formed vessels. The continuity of the nerve was realized by the side-to-side juxtaposition of the different segments of the nerve, with consequent formation of actual neuromas at the central and peripheral points of junction.—*Journ. of the Am. Med. Assn.*

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#### TREATMENT OF LEG ULCERS.

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Norregaard states that he has applied in 560 cases of varicose ulcers on the leg a simple office treatment which has given constantly satisfactory results, curing in many instances ulceration of many years' standing. In one case the patient had spent so much time in bed on account of his ulcer that it totaled several years out of his life. The main point is the wearing of an elastic bandage all the time, just as a person subject to hernia wears his truss. The next essential is to keep the leg clean and free from chemicals. The physician must carefully instruct the patient in

the right way to keep the leg clean. He ascribes his success in large part to this careful instruction of the patient. The elastic bandage is made of loosely twisted cotton woven over long strands of rubber, the whole forming a soft, elastic webbing. It is applied to expel the blood and is drawn as tight as the patient can bear and worn as close to the skin as the secretions permit. At night the bandage is removed and a compress moistened with dilute silver nitrate or boric acid solution applied. In the morning the ulcer and its environment are rinsed off with pure cold water or dilute boric acid solution. Then the ulcer is covered with thin rubber tissue cut out a little larger than the area of the ulcer and dipped in cold water, then with the elastic webbing, not drawn too tight. If the secretions do not soak through too much the bandage is not removed till night. Any spots on the bandage can be washed off with soap and water and a nail brush, and the bandage can be dry for the morning. The bandage is preferable to an elastic stocking, as it fits better and permits evaporation and ventilation of the skin. The ulcers heal generally in six or seven weeks; sometimes large ulcers heal more quickly than small. Norregaard queries why the leg and the stomach seem to suffer most from ulcers, and he answers his query by pointing to the influence of gravity. Treatment must aim to relieve the lesion from the influence of gravity. He has his patients return about twice a week, and each time the cleansing process is repeated until he is convinced that the patient can attend to it properly himself.—*Journ. of the Am. Med. Assn.*

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## MEDICAL

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### ALCOHOL, EFFECT OF, WHEN INJECTED INTO NERVES.

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Nerve-tissue from a case of supraorbital neuralgia in which an injection of 80 per cent alcohol into the nerve had been given nine months before was studied by the authors. One c.c. of the alcohol had been injected into the nerve in various directions under visual control, and the fragment examined was taken from the point injected. Neighboring uninjected nerve-tissue was



also examined for comparison. The conclusion reached was that the only histological changes produced were those indicating a mild degree of interstitial inflammation, not appreciably modifying the structure of the nerve, not altering its fibers, and which might, in fact, have been merely the result of the denudation to which the nerve had been subjected at the time of the injection. Under these conditions the statement is warranted that the introduction of 80 per cent alcohol into a nerve trunk causes no lasting vital alteration. While this does not detract from the practical importance of deep alcohol injections in neuralgic conditions, it shows that 80 per cent alcohol is not certainly a neurolytic agent.—*Monthly Cyclopedia and Medical Bulletin*.

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#### A SIMPLE MECHANICAL METHOD OF ARRESTING EPISTAXIS.

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Amongst a number of methods which he describes for relieving neuralgic pains in various parts of the body as well as other conditions, by simple manipulations with the hands, Nägeli, in a book on the subject, details a procedure for arresting epistaxis, which is as simple as it is ingenious. The technic of the manipulation is as follows:

The patient sits upright in a chair, and the operator standing behind him allows the index fingers of both hands to rest beneath the body of the inferior maxilla on either side, while the thumbs behind the angle of the jaw rest upon the occiput. Gentle pressure is then made upwards upon the head, which at the same time is extended backwards as far back as can be comfortably borne by the patient. The muscles of the neck are thus put on the stretch. In this manner an artificial anæmia is set up in the vessels of the head and likewise in the smaller vessels of the nasal mucous membrane, causing an arrest of the epistaxis.

The procedure should last no longer than from one to two minutes, for the anæmia produced may be so marked as to cause a partial or complete loss of consciousness. Nägeli ascribes the anæmia thus produced to the pressure of the neck muscles upon the large venous trunks of the neck. Ritschl (*Munich Med. Woch.*, October 22, 1912), who has tried the method successfully

a number of times, ascribes the anæmia to the stretching of the cervical sympathetic nerves, resulting in a vaso-constriction of the large and small vessels of the head—*Med. Review of Reviews*.

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## OBSTETRICAL

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### CARCINOMA OF THE FEMALE GENITALS.

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Theilhaber (Arch. f. Gyn.) says that the statistics as to final results thus far presented by different schools of operators, do not permit us to draw conclusions which are of absolute significance. Experience seems to show that in carcinoma of the body of the uterus, the total vaginal extirpation may be regarded as the best procedure. The number of patients cured by this means is relatively large. An invasion of the parametrium usually occurs late, and if the extension has once taken place, the carcinomatous process has extended so far that even an extirpation of the parametrium can not result in a cure. Moreover, the patients are usually older women in whom extensive operative procedures, especially by the abdominal route, are very dangerous and for this reason the simple vaginal hysterectomy is usually preferable. In cases where the carcinoma is derived from the cervical mucous membrane, it is usually necessary to remove the entire uterus with the parametria, especially if the growth starts from the upper portions of the cervix. Where the carcinoma begins in the lower segments of the cervical mucous membrane, and in which it has not extended upward, or where the parametrium remain free, the case does not, as a general thing, come under observation and treatment, because in this stage the new growth is productive of very few symptoms. Here, a partial excision, including the cervix, is as much justified as a radical operation, but if in a case of this kind, the parametria has become involved, a radical operation offers a better prognosis. In a carcinoma of the vaginal portion of the cervix without evident infiltration of the parametrium, no definite conclusions as to the treatment can be arrived at. He says that the best results attend a partial extirpation and that the good effects obtained by the older proced-

ures with the thermocautery should not be discarded. It may be possible that the heat rays proceeding from the cautery exert a similar effect as that of the Roentgen and radium rays, and that absorption of some of the neighboring carcinoma cells may occur. Theilhaber is therefore in favor of extending renewed attention to the palliative operations by means of the thermocautery.—*Charlotte Medical Journal*.

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#### PITUITARY EXTRACT IN OBSTETRICS, USE OF.

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The author's experience with pituitary extract has led him to the following conclusions: It is inactive in the presence of fever. It is a powerful galactagogue. It stimulates uterine contractions in from fifteen to thirty minutes after being injected intramuscularly. It causes a rise of blood-pressure and slowing of the pulse, the highest pressure occurring between twenty and thirty minutes after the injection. It does not cause an inflammatory reaction at the site of the injection or any noticeable nervous symptoms.—*Monthly Cyclopedia and Medical Bulletin*.



## Editorial

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**PUBLISHER'S NOTICE**—The Journal is published in monthly numbers of 48 pages at \$1.00 a year, to be always paid in advance.

All bills for advertisements to be paid quarterly, after the first insertion of the quarter.

Business communications, remittances by mail, either by money order, draft, or registered letter, should be addressed to the Business manager, C. S. Briggs, M. D. corner Summer and Union Streets, Nashville, Tenn.

All communications for the Journal, books for review, exchanges, etc., should be addressed to the Editor.

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### SPINAL ANALGESIA.

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We are in receipt of a reprint by William Seaman Bainbridge, Sc.D., M.D., New York, on the subject of spinal analgesia, with summary of personal experience in 1,065 cases in which the method had been successfully employed. Biers' discovery of the method in 1899 was at once the signal for surgeons all over the world to resort to the subarachnoid injection of cocain for anæsthetic purposes, and its extensive use in its experimental stage with an undetermined dosage and imperfect technique was followed by so many disastrous results and unpleasant symptoms that the method soon fell into apparently complete disuse, and few, even while acknowledging its advantages, had the courage to persist in its use. The writer used it in a limited number of cases early in 1899, and while the anæsthesia was all that could be asked, and all subjected to the test recovered, the disagreeable, even alarming symptoms that followed in several cases were sufficient to deter from further trial. Interest was awakened in 1911 by the visit of Jonnesco, of Buda Pesth, to this country, who operated under the injection of stovaine and strychnine, making his injections at all levels, thus obtaining more universal analgesia. Careful experimentation has resulted in a settled dosage of the different drugs used, and has rendered the procedure safe. The drugs used most frequently are cocain, stovain, novacain, tropacocain, beta-eucain, beta-eucain lactate, holocain hydrochloride, orthoform, anæsthin and other agents. The technique

of the method has been carefully elaborated. The method after its rise and fall and rise again is now an accepted one with the profession, and in cases in which it is indicated, such cases as for various reasons inhalation anæsthesia is contraindicated, is of undoubted value. The record presented by the distinguished surgeon in this reprint is remarkable — 1,065 cases with but one death, and that due to status lymphaticus. An additional case, No. 1,069, has been added to this series in which death occurred, but as the showing of the autopsy made upon the patient, death was attributed to a complications of lethal pathological findings not often found in a single person. The coroner's inquest completely exonerated all concerned from the death. As a matter of curiosity we enumerate the postmortem findings in this case. "Marked œdema of the brain, myocarditis, atheroma of the aorta aortic insufficiency; emphysema of lungs; chronic interstitial splenitis; chronic gastritis; chronic enteritis; chronic interstitial nephritis. Spinal chord showed no gross lesion."

Surely this patient did not need any out of the way procedure to bring him to an end. It is only remarkable that he lived long enough to have the method tried upon him. The reprint is a valuable lesson to the profession in that it shows what a degree of safety and perfection a once popular but rapidly discarded and discredited method can be brought by patient study and careful experimentation. The author is to be congratulated upon his scientific work in establishing upon a firm basis a procedure that has undoubted merits, and that has a determined place in surgery, though its field of usefulness will always be limited.

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#### NEED OF UNIVERSITY STUDENTS TO STUDY MAN.

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*The Editor:*

MY DEAR SIR—If I were able, I should be glad to write to every university student, who is interested in the scientific and sociologic study of man, especially criminal, pauper and defective men. I trust, therefore, you will publish this letter, and I request each student to regard it as a personal letter to himself, and

whom I shall be pleased to help all I can, should he desire to devote his life to the fundamental study of social pathology.

I appeal to university students to direct their attention more to the scientific study of humanity. It is a cry to "Come over into Macedonia and help us." Let the university encourage students more to take up these subjects which have been so long neglected and in which there are great opportunities to aid humanity, directly, by scientific investigation of the causes of crime, pauperism and defectiveness, in order to prevent and lessen them through knowledge gained by first-hand study of the individuals themselves.

When a student chooses for his life work a subject in the older branches of knowledge—as physics, philosophy, philology, Greek, Latin, and natural history—he finds the field somewhat well developed; but not so in more recent sociological lines of research—as criminal anthropology (criminology, shorter term), and other cognate subjects, in which there is full opportunity for mental acumen and scientific ability of the highest character, to carry out most lofty purposes.

The question may arise as to what course of study will prepare one best for such work. I would suggest the following:

1. A two years course in psychology, especially laboratory work.
2. Medical studies to the extent of anatomy, physiology, general pathology, nervous disease and insanity (especially clinical studies).
3. A practical course in craniology in the laboratory.
4. Facility in reading modern languages, especially German and French.

Thus, social pathology, especially criminal anthropology, one of its branches, requires more extensive preliminary training than most subjects, for it involves the investigation of man, both mentally and physically. Such training is synthetic, which in this age of specialism, is much needed. As such education is relatively new, and experience in it as yet limited, it is difficult to designate a preparatory course. I have myself followed the course of study just indicated, but more extensively, especially



in medical lines, but such additional preparation might not be practicable for most students.

The leaflet entitled, "Study of Man," explains the work more fully, and I shall be glad to mail it to any student gratis who will send me his address. As I have said in this leaflet, "Criminals, paupers, mattoids, and other defectives are social bacilli, which require as thorough scientific investigation as the bacilli of physical diseases."

I beg leave to remain,

Most faithfully,

"The Congressional,"

ARTHUR McDONNELL.

Washington, D. C., January 21, 1913.

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### THE A. A. A. S.

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The American Association for the Advancement of Science held its sixty-fourth annual session at Cleveland, Ohio, from December 30, 1912, to January 4, 1913. There were in session at the same time other scientific bodies, numbering about twenty-five, which were affiliated with the main body. An idea of the reach and scope of these societies might be gleaned by naming two only to save space. The American Association of Economic Entomologists and the Society of The Sigma. At the opening general session the retiring president, Dr. Charles E. Bessey, introduced the President-elect, Dr. Edward C. Pickering, of Harvard; Mayor Baker, of Cleveland; President Thwing, of Western Reserve, and Dr. F. M. Comstock, representing the Chase School of Applied Sciences, made addresses of welcome, which were replied to by President Pickering. The annual address was then delivered by the retiring president. The attendance was about one thousand. Seventy-five new members were elected and two hundred and fifty were elected Fellows. It was resolved that the next meeting would be held in Atlanta, Ga., and it was recommended to the next general council that the meeting for 1914 be held in Philadelphia, and that the summer meeting for 1915 be held in San Francisco. E. S. Wilson, Columbia University, New York, was elected the next president. Cleveland is a spraddled out town—a cross between Cincinnati and Chicago

She did not spread herself much to entertain the association. Most of them, apparently, did not know the "scientists" were there. Some crafty Clevelander is carrying my umbrella and wearing my eye glasses.—*E. S. McK.*

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#### DIABETES-MELLITUS.

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I am undertaking an exhaustive research into the pathology, etiology and dieto-therapy of Diabetes-Mellitus. I am very anxious to hear from every physician in the United States who has a case under treatment, or who has had any experience in the treatment of this malady. Van Noorden says "the best treatment for the diabetic is the *food* containing the *greatest* amount of *starch* which the patient can bear without *harm*." If any physician who reads this has similar or contrary experience, and would take the trouble to write us, I would esteem it a special privilege to hear from him, if only a postal card.

Kindly address WILLIAM E. FITCH, M.D.  
355 W. 145th St., New York City.

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#### MEDICO-LEGAL.

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An operator at a scarlet fever hospital sought compensation, because in the exercise of his duty he had contracted scarlet fever. The evidence showed that he was or might have been exposed to infection, and that he suffered from the disease, and the county court awarded compensation. The Court of Appeal annulled the award, on the ground that there was no evidence to show that the infection was an accident. It could not be held that there was an accident whenever an attendant in a hospital contracted an infectious disease present in the hospital. There must be proof of time, place, and circumstances in which the alleged accident occurred.—*E. S. McK.*

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A suit for nullity of marriage was sued for by two parties, each alleging that the other was unable to consummate the marriage. The report of the medical examiners was to the fact that

there was no evidence of physical incapacity on the part of either, but that examination of the woman was to the effect that showed that the marriage had not been consummated. The judge, after hearing the evidence of both parties, was of the opinion that the marriage had not and could not be consummated, that neither party had committed perjury, but that their stories, each assigning the defect or fault to the other, were inconsistent. He declared himself unable to say why the marriage had not been consummated, but was satisfied to annul it on the petition of both parties.—*E. S. McK.*

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#### OUR PREMIUM.

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We are sending out sample copies of the Journal every month, and call the attention of every one who receives a copy to our offer of a premium to every new subscriber. See advertisement for particulars.

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We are indebted to our courteous contemporary, Dr. Deering J. Roberts, for galley proof of the article by Dr. G. Frank Lydston, which article appeared in the February number of the *Southern Practitioner*, an article that we take pleasure in publishing in this Journal, as it deals with questions of vital importance to the entire medical profession.



## Reviews and Book Notices

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**Mechanical Vibration.** Its Physiological Application in Therapeutics. By M. L. H. Arnold Snow, M.D., Author of "Mechanical Vibration and Its Therapeutic Application." Professor of Mechanical Vibration Therapy in the New York School of Physical Therapeutics; Associate Editor of the Journal of Advanced Therapeutics; Late Assistant in Electro-Therapeutics and Diseases of the Nervous System in the New York Postgraduate Medical School, etc. Published by The Scientific Authors' Publishing Co., New York. 1912.

This is a useful text-book and guide to that part of the medical profession who desire to become familiar with certain phases of drugless therapy. It is claimed by the author that mechanical vibration is one of the most valuable agents in physical therapeutics. It has an extensive field of usefulness of which spinal stimulation and inhibition constitutes a large part. Massage and osteopathy have become popular with the people, and this treatment by mechanical vibration supplements, if it does not supplant, these methods of treatment, which are for the most part in the hands of ignorant and unscientific pretenders. The work is well prepared and well arranged and will be of great service to those of the profession interested in drugless therapy. The work is well illustrated throughout and its text clear and concise. We take pleasure in commending the work to our readers.

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**The Surgical Clinics of John B. Murphy, M.D.,** at Mercer Hospital, Chicago. Volume I. Number VI (December). Octavo of 153 pages, illustrated. Philadelphia and London. W. B. Saunders Co., 1912. Published Bi-Monthly. Price per year: Paper, \$8; Cloth, \$12. W. B. Saunders Co. Philadelphia. London.

We acknowledge with thanks to the publishers the receipt of Vol. I, No. 6, of the Surgical Clinics of John B. Murphy, M.D. As with all the preceding numbers of this excellent serial publication, this number is replete with interest and important information. The methods of this distinguished surgeon are decidedly progressive, and the descriptive and analytical lectures are incisive and clear. The subscriber to this serial in studying these

lectures culls benefits almost as great as if he sat at the feet of the great surgeon when he operates and lectures. As usual, feats in bone surgery predominate in this volume, and every clinic shows the wonderful advances in osseous surgery accomplished by this master.

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**Second Annual Report of the States Charities Commission to the Hon. Charles S. Deneen, Governor of Illinois.** Springfield, Ill., December 31, 1911. Illinois State Journal Co., State Printers. 1912.

We are in receipt of this carefully prepared report of the State Charities Commission of the State of Illinois. The functions of this commission are to improve the means of caring for the wards of the state and to correct abuses that exist in state institutions provided for the care of helpless and criminal individuals. There exists a wide and fertile field for cultivation and improvement in every state, and the work of this commission is to be commended, and should be imitated in every state. This report is exceptionally well gotten up, and shows that the commission is up to its work, and that it is accomplishing untold good in its activities.

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**Golden Rules of Surgery.**—Vol. I of the Golden Rule Series. Especially intended for students, general practitioners, and beginners in surgery. By Augustus Charles Bernays, A.M., M.D., F. R. C. S., Eng., Life Member of the German Society for Surgeons of Berlin, Chief Surgeon Lutheran Hospital and for Twenty Years Professor of Anatomy and Surgery, St. Louis. Second Edition. Revised and Rewritten by William Thomas Coughlin, M.D., Prof. of Surgery, Chief of Clinic, St. Louis University Medical School, St. Louis; 280 pages. Octavo. C. V. Mosby Co., St. Louis. Price, \$2.25.

The entire absorption of a large first edition of the Golden Rules of Surgery made necessary the issue of the present one. Its enlargement and elaboration by the junior author has made it possible to cover the entire field of surgery in a thorough and systematic manner, at the same time preserving the character and charming style that made the first edition of this book popular.

In reviewing this volume, one is struck with the force of each statement, showing that the authors have weighed well the idea

to be conveyed and have striven to present the thought to the reader in a convincing manner.

One is surprised to find cardinal principles enunciated in a sentence, which in ordinary text-books and systems can only be found after careful dissecting page upon page. How easy it is to forget facts is impressed upon one after reading this volume over again and again. It can be truthfully asserted that to read this little volume over and over will so acquaint one with the fundamental truths of surgery that a view-point of this science and art will be obtained that will redound greatly to the credit of the reader.

The publishers announce that other volumes in this series will follow rapidly—on Gynecology, Diagnosis and Treatment, Pediatrics, and Obstetrics.

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**Proceedings of the Sixth Annual Meeting of The Association of Life Insurance Presidents.**—Held in the Hotel Astor. New York, N. Y. December 5 and 6, 1912.

We acknowledge the receipt of this volume of proceedings of the Association of Life Insurance Presidents, an organization which was founded six years ago. It represents great wealth and interests of the greatest importance to the people of all sections of the country. In these transactions we have read with great interest an address before the body by the Baby Senator from Tennessee—Senator Luke Lea—which is an eloquent plea on the call of the South for insurance investment. He contends, very properly, that the reserve funds from paid up premiums should be available for investment in the sections from which the premiums have been paid. The papers presented are, one and all, of the greatest interest and will be read with profit and advantage everywhere.



## Publisher's Department

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Anedemin (compound strophanthus—squill—apocynum—sambucus) is wide in therapy, ideal in rationale. In all edematous conditions, resultant from cardiac, renal or hepatic diseases, it yields exactly the results the physician wants. Anedemin acts upon the circulatory system, accelerates the flow in the thoracic duct, rapidly returning the serum to the blood by the lymphatic channels, and by resorption into the blood by healthy arterial tone, from whence it is removed by diuresis and purgation. It is non-toxic, not cumulative, and patients do not have to be watched nor kept recumbent as in digitalis administration. It can be pushed to a finish. It is not a renal or gastro-intestinal irritant. As one leading clinician has written: "I prescribe anedemin, because I don't get results with digitalis half the time; elaterium is too variable and dangerous; I do get results with anedemin all the time. Anedemin is manufactured by Anedemin Chemical Co., of Chattanooga, Tenn.

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*"Elixir Saloform Comp., Flexner.* Contains 20 per cent alcohol. An efficient remedy for Rheumatism, Gout, Cystitis and Uric Acid Solvent. Prepared for physicians' prescriptions only. Robinson-Pettet Co., incorporated. This issue.

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Tongaline exerts a manifest action on the nervous system of the secreting order of glands; it diminishes the uric acid content of the blood, and produces a substitute irritation in the region of the articular surfaces. On account of the exaggerated vasomotor action of tongaline, the irritation drives the uric acid deposits toward the emunctories, causing a great secretion of bile in the liver, an abundant diuresis in the kidneys and a serous diarrhea in the intestines, while in the feces and in the urine we find a great quantity of uric acid.

These conditions secure the attainment of the desired effect, which is to expel from the organisms all those agents, the accumulation and retention of which in the blood are the cause of rheumatism, neuralgia, grippe, gout, nervous headache, malaria, sciatica, lumbago, tonsilitis, heavy colds and excess of uric acid.

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# NASHVILLE JOURNAL — OF — MEDICINE AND SURGERY

CHARLES S. BRIGGS, A. M., M. D., Editor

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MARCH, 1913.

No. 3.

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## Original Communications

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### THE RELATIONS BETWEEN INEBRIETY AND TUBERCULOSIS.

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By T. D. CROTHERS, M.D.,  
Superintendent Walnut Lodge Hospital, Hartford, Conn.

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Notwithstanding all the exhaustive studies and researches concerning tuberculosis, alcohol as a causative factor is rarely mentioned, and even then is considered as only incidental.

The personal experience of every practical student of inebriety shows that tuberculosis and inebriety are very closely related. The restored and cured patients from inebriate institutions frequently die of tuberculosis, sometimes within a very recent period or after an interval of years.

In a study of a large number of cases under my special care, I have found that fully 20 per cent die of tuberculosis. It would seem to be a fact, although we have not the data to support it, that pneumonia and tuberculosis are the most common diseases which follow inebriety.

Cerebral hemorrhage and nephritis are the next in prominence. All students of inebriety recognize that tuberculosis and alcoholism are family diseases extending down through several generations. The boys become inebriates. The girls have consumption and die. The ancestors are moderate or excessive drinkers and a vicious circle is established, and this is the continuation of it.



The advent of these diseases seems to be provoked by the slightest exciting causes. In one instance reported many years ago by Dr. Mays, of Philadelphia, three generations all died from one or other of these diseases. Other authors have noticed the same intimate relation. Often consumptive mothers have children who are alcoholics, and inebriate fathers leave a progeny extremely susceptible to consumption. It has been noticed that children of moderate drinking parents may remain well and total abstainers up to the climatic period of life, then suddenly or without cause develop either one of these diseases. In two instances several children of consumptive ancestors became spirit and drug takers late in life and died very quickly. In another instance, where the ancestors were beer drinkers, the children all suffered from bronchial and catarrhal troubles, which merged into tuberculosis. A number of persons coming to institutions for treatment for the alcohol and spirit addiction, which began late in life, have a history of tuberculosis and alcoholic ancestors. Such persons are in the senile and demented stage, and their use of spirits is a symptom of exhaustion. It is often a question whether a person in this condition can be permanently restored. The removal of spirits is frequently followed by some serious acute affection of which the lungs and kidneys seem to be the most sensitive and easily affected.

The withdrawal of spirits in elderly persons with an ancestral history of tuberculosis or inebriety is a serious consideration, particularly in the later treatment, and conditions necessary to combat the predispositions present.

The advent of inebriety in early life in a family where consumption has been a prominent disease, brings out many perplexing questions of prognosis and treatment. Up to a very recent period persons thought to inherit a disease of the lungs were treated with spirits as a remedy and preventive measure, sometimes in the form of tonics; in others as beer or wine or stronger liquors. The rule was that such persons died early of Bright's disease, arterial sclerosis, or became paroxysmal drinkers. After the development of marked diseases of the lungs, spirits were

thought to be a preventative remedy. When used the patients all died of hemorrhage of the lungs.

We now know that the action of alcohol in paralyzing the walls of the blood vessels favors breaking down of the tissue with hemorrhage, and no remedy is more dangerous than spirits for this particular effect.

We now realize that spirits as a remedy for tuberculosis stimulates active sclerosis of the arterial coats, diminishing their elasticity, and favoring rupture in the kidneys, lungs and cerebrum. In addition to this, spirits diminishes the oxygen carrying properties of the blood corpuscles, and also increases the toxins, and lowers the power of elimination. These are most favorable conditions for the growth of tuberculosis. Studies of consumption give great prominence to bad air, improper food and unhygienic surroundings. The use of spirits in these conditions is only mentioned as a favoring cause. In reality it is one of the most active, predisposing causes.

The value of spirits in tuberculosis resembles opium in its anæsthetic effect, soothing the irritation and psychical pain, and covering up the conditions which it literally increases. It may be stated as a rule that in all acute diseases of the lungs, kidneys and circulatory organs, the action of alcohol is dangerous.

The hereditary studies of inebriety show that the two diseases very frequently follow each other, and in the postmortem of inebriates there are very frequent evidence of former tubercular deposits which have healed.

It is also evident that children of tubercular parents have defects of functional and organic activities with feeble powers of resistance, endurance, and capacity to adjust themselves to the surroundings. Such persons are easily exhausted, suffer from physical and psychical pain, and find most perfect relief in wines or beers, or proprietary drugs containing spirits.

Persons suffering from the ordinary spasms of indigestion or insomnia from excitement or overwork find rapid relief in spirits, and this is repeated until the system demands it.

There is in the brain a low degree of resistance, which reason condemns. Thus the peculiar fascinating mental impression from

the relief which a dose of spirits brings, overcomes all caution and reason, and the person continues to use it, knowing its danger, and yet taking the chance of being able to escape in some way from its control. The pain centers are hyper-sensitive, and the pleasing impression of relief dominates everything. It is a theory with many that to overcome this peculiar fascinating morbid impulse and produce disgust and repulsion is the highest development of therapeutics.

Such persons fail to realize that this fascinating effect dies out or suddenly turns to extreme disgust from causes unknown. The subsidence of the drink craze is by no means the cure. Other diseases may intervene, of which consumption, nephritis, and neuritis are very common.

Pneumonia is another acute inflammatory condition that comes on, unexpectedly, and terminates fatally. In many cases it is simply pneumo-paresis, or paralysis of the branches of the pneumo-gastric nerves. The statement that most inebriates dies from pneumonia is based on clinical experience.

In large hospitals the mortality from pneumonia is simply a statement of the last disease, and gives no indication of the conditions of which pneumonia was a mere sequel.

In Germany, it has been noticed that diseases of the heart, liver and kidneys are most common where beer is used extensively. This is simply disease of the capillaries and the fibrinous degenerations of the coats of the arteries. The system is filled with toxins and ferments, which derange the metabolism, increase the fibrin, and diminish the elimination. The heart becomes the seat of fibrinous deposits; also the liver and kidneys. Degeneration of the lungs, particularly tuberculosis, or acute pneumonia, are likely to occur anytime.

The process is one of general degeneration in which the nerves and the cells taken an active part. Tuberculosis is favored because of the low resistance and diminished phagocytes. The soil for the growth of germs is increased, and whether the results will be alcoholism or tuberculosis depends on a variety of causes that are unknown. Sudden paralysis of the vasomotor nerves and diminution of the pain centers may produce very pleasing



effects, or it may be followed by unpleasant painful sensations. In the latter it is not repeated. In the former it is. Of course there are a great many antecedent causes favoring this.

The wonder is always the antagonism of the system to these destructive forces and the power to repair. Defective oxidation is supposed to be favorable to the growth of tuberculosis. It is equally favorable to states of exhaustion, pain and discomfort, for which spirits and narcotics are most grateful remedies.

That explains the fact that more spirits are drunk in bad air, bad surroundings where oxygen is deficient. In the therapeutics of tuberculosis this tendency to inebriety should be recognized as a peril of equal magnitude to that of the recurrence of former favorable conditions. There has been a gradual change in the remedies used, particularly those containing spirits, but the clinical reasons are not clear because the active causations of both have not been realized.

The most active statistics concerning the development of tuberculosis show that fully 60 per cent occur in persons who are neurotics and suffer from general defects often inherited and acquired; that not more than 30 or 40 per cent have developed in persons previously normal and healthy. These statistics correspond closely with those of inebriety, where at least 70 per cent or more occur in persons who are defective or degenerates in some way or other.

This indicates that both diseases are largely due to defects either inherited or acquired or constitutional degenerations. This has not been studied, but it is a relation which is unmistakable and throws great light on the future and the possibilities of treatment.

There is a phase of the subject in which the use of alcohol has been concealed and unrecognized. Such cases present a history of so-called rheumatism, preceding the development of tuberculosis. The history will be that of pain and stiffness in the lower extremities, deranged digestion and possibly constipation. Acute pain of short duration will appear in the lower extremities, and insomnia, and many complex symptoms will appear.

Later, tuberculosis will develop, and the progress of the case will be rapid. Perhaps some physician will order stimulants as a remedy. Then the symptoms will become more complex, and some young physician will describe new phases of tuberculosis and feel confident that he is observing an unknown aspect of the disease.

The facts are these: This man was a secret spirit drinker, perhaps for years in moderation and mostly concealed and taken at night. The pains which were diagnosed as rheumatic were really neuritis from toxic poisoning, and the appearance of tuberculosis was a very natural sequel, where the soil was prepared and the power of resistance lowered, and the change from the use of spirits to bacilli degenerations was most natural.

The new symptoms which startled the young physician were nothing more than the localized toxæmias, which were repressed by still more serious deposits of the lungs and kidneys. These cases are by no means uncommon, and it may be stated that rheumatism, meaning localized pains in the extremities preceding consumption, is due to a specific toxin of which alcohol is the most common cause.

The same thing may occur in persons who use proprietary medicines containing large quantities of alcohol. There will be toxic states of which headache may be one symptom, and then tuberculosis. The diagnosis of exhaustion, anæmia and defective metabolism is often made in these cases, and formally spirits were prescribed as remedies.

The new pathology teaches us that this was very fatal practice. The symptoms which it sought to evert were precipitated and actually increased. There are some conclusions which should be impressed and recognized. They are as follows:

1. Alcohol and tuberculosis are very closely related. One precedes and follows the other. They are both diseases of degeneration and follow down through generations.

2. Alcohol is an exciting cause, preparing the ground for tuberculosis, and should never be used as a remedy. Forms of opium are safer and less injurious. Proprietary medicines containing alcohol are equally dangerous and should be avoided.

3. Many of the symptoms preceding the development of tuberculosis are the direct result of toxic agents, of which alcohol is prominent, and no case of tuberculosis can be understood unless the alcoholic problem is understood and the use of alcohol eliminated.



## Selected Articles

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### SOME POINTS IN THE DIAGNOSIS OF THE MORE FREQUENT ABDOMINAL DISEASES.\*

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By ORRIN S. WIGHTMAN, B.A., M.D.,  
Clinical Professor of Medicine, N. Y. Polyclinic Medical  
School and Hospital; Visiting Physician, Workhouse  
Hospital; Asst. Visiting Physician, City Hospital.

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In considering the medical diagnosis of the abdominal diseases, the subject is so broad that it has seemed wise to limit the consideration of this paper to *intestinal stasis, ulcer of the stomach, cancer of the liver, and gallstone conditions*. These are the more ordinary diseases affecting the organs named, and each gives unmistakable evidence when carefully observed.

There is a tendency at the present time to overlook ordinary symptoms in our desire to find the unusual and, further, there is a temptation in the hurry of office and bedside practice to examine in a superficial way, or not to examine at all. Special stress has been laid upon particular reflexes which are supposed to be almost pathognomonic of the disease, and we should not be led to attach too much importance to these signs, nor should we neglect what is often self-evident and yet not observed.

Diagnoses of the snap-shot variety are dangerous both to patient and physician, and the fact that a conscientious physician can not arrive at a positive conclusion at his first examination and is frank enough to say so is distinctly complimentary to his powers of observation.

In the first place let us take the history of the case personally and thoroughly, not trusting too much to incidents which may be of minor importance and have created a lasting impression upon the patient. The mental condition of the sick often leads to emphasize some symptoms and utterly ignore others of great importance.

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\*Read before the Rockland County Medical Society, June 12, 1912.

Bear in mind that a patient seeking advice is entitled to the best you can give him, and this naturally includes a most careful physical examination.

Cases are constantly recurring of patients who supposed they had a simple bronchitis which proved on a careful examination of the heart to be secondary to mitral disease with stasis in the lungs. This might have been obviated if the trouble had been taken to go over the case completely.

Don't take the patient's word as to some other physician's diagnosis; examine for yourself. Conditions may and probably have changed in the meantime, and the examining physician must stand sponsor for what he finds at the time of examination.

#### INTESTINAL STASIS.

Intestinal stasis, including as it does a non-functionating bowel, lack of peristalsis, which requires the constant whipping of a cathartic, accumulated feces which assume tumefactions at times of alarming proportions, is rapidly being recognized as almost a distinct disease.

Considered locally its site may disguise other affected viscera; the gut distended from accumulated gas and putrefaction often gives pressure symptoms on the diaphragm, embarrassing the heart's action.

The hard overfilled colon wells up in the ascending, transverse and descending areas, and it is quite common to have a diagnosis of a large liver made in an adipose subject, where the hard rounded transverse colon passes under the free border of the right costal arch.

Bear in mind that the stasis produces a condition of chronic gut inflammation, with enlarged vessels and venous stasis, and that these are the types which resist so poorly an invasion of Peyer's patches, when typhoid fever overtakes them.

The patient complains of dull pain, much increased when pressure is made along the areas already named. The spleen is reported as tender on pressure, which is really a misnomer, as the pain is due to the inflammation surrounding the gut, at the splenic flexure.

The abdomen may be inflated at irregular times, and the bane of the patient's life is the daily movement of the bowel. Give a full injection of sweet oil at night to soften the contents of the sigmoid, follow in the morning with high enema of normal saline, and do this for several days until the abdomen can be again examined, and the right lobe of the liver will now be approachable. It may require the addition of fl. extr. fel bovis, or the inspissated powder, to bring about the necessary fecal softening.

The bowel must be emptied and out of the way if we are to approach an overdilated stomach, an enlarged liver, floating kidney or tumor of the appendages. Fortunately a clearer view of the possibilities of peristalsis has been obtained by the bismuth test meal, followed by X-ray examination at definite intervals.

There is another method of gaining information which the observant physician is glad to avail himself of in intestinal stasis. We know that the sluggish gut is all too willing to retain fecal matter beyond its allotted time. Chemical action and bacteria are never at rest and the products of putrefaction soon make themselves felt in the autointoxication with production of indican, indol, and skatol, and the numerous bacteria of putrefaction.

The detection of indican by taking equal parts of urine and hydrochloric acid in a test tube, adding a few drops of peroxide, and then washing out the color with further addition of chloroform, makes it a very simple method of comparing the relative amount of indican present.

Bear in mind that the violent rim of coloring between the chloroform and the urine must be positive, and that if iodides have been given a very positive reddish color is contained in the chloroform at the bottom of the tube.

I have been surprised at times to find so little indican in specimens where I thought putrefaction was extensive, and the high coloring matter in the urine depended more upon incomplete oxidation, high percentage of uric acid and urea and the bile acids. This has been suggestive of Nature's strong protective resources in combating putrefaction with her own secretions.

When the offending matter has remained for a long period in the intestine, its removal may result in ulcerations in the gut wall,



and a form of membranous colitis, with mucous shreds and sometimes blood. When the ulcerations go beyond the first degree or there is a large and constant amount of blood in the stools, surgical interference may become necessary.

A colitis with extensive wall involvement may also produce exudate at the outer wall of the bowel, with subsequent adhesions. This further embarrasses a normal peristalsis and continues a vicious constipation. Before leaving intestinal stasis I would again emphasize the importance of routine examination of the urine and tabulating comparative results.

#### ULCER OF THE STOMACH.

In ulcer of the stomach, the history of the case is again almost as important as the symptoms complained of. The types which I have most often met are the tea drinking servants and those of advanced years who complained of indigestion.

Sometimes in ulcer the pain is definite and positive as far as the individual is concerned. At the same time it is a common occurrence to have patients suffering with a chronic type of indigestion which may never be discovered to have been ulcer of the stomach, and only when these cases turn malignant is the previous history given sufficient consideration. This applies particularly to those of advanced years.

When pain is present it is usually felt either at the lower end of the sternum or posteriorly at the level of about the tenth ribs. Vomiting is a usual and constant symptom, and if the ulcer has invaded a small vessel, blood either oozes slowly and, becoming partially digested, is vomited as a coffee-ground material, or a severe hemorrhage of fresh blood startles the patient into thinking that he has the hemorrhage of phthisis.

Pain is supposed by some to be less after taking food, as the dilution of the excessive secretion of hydrochloric acid tends to diminish the irritation of the ulcer, and by others to be aggravated owing to scraping of the ulcer by food particles. As a matter of fact, the size and location of the ulcer probably plays a more important part than either of the above theories.

Again the chemical assistance derived from a careful examination of the stomach contents can not be over emphasized. In the absence of hydrochloric and the presence of lactic acid we are on our guard as to malignant changes. We can not hope by palpation to find an indurated stomach wall, and if we could, the change would be so far advanced that even surgical intervention could hardly more than prolong the usual fatal outcome.

The stools deserve the same careful consideration.

When we stated that the history of the case is all important, we had under consideration the differential diagnosis between other conditions where the history plays so important a part.

The vomiting of the alcoholic with his cirrhosis of the liver might be confusing, until the enlarged liver, with possible ascites or jaundice, cleared up the case.

Chronic gastritis rarely shows any blood in the vomit, pain is less severe, and there is a diminution of HCl. Hepatic colic might be confusing, except that it is severe in onset, gives a tender gallbladder, and subsides as suddenly as it began, usually with jaundice following.

From the fact that ulcer and cancer are so often combined, and that the malignant condition in many cases becomes engrafted on the ulcer, it becomes a most important matter that the differential diagnosis be made at the earliest possible date.

Cancer very early, particularly in those advanced, shows its devastating character with loss of weight. The latter is very rapid, the pain is exhausting, the back suffering most. Lassitude, loss of appetite, and emaciation follow in rapid succession. If the ulcer starts in the lesser curvature and spreads to the under surface of the liver, after becoming malignant, the condition progresses even more rapidly.

#### CARCINOMA OF THE LIVER.

In making a diagnosis of carcinoma of the liver we find it oftener in those advanced in years and usually secondary to cancer elsewhere. As I have said, ulcers of the stomach are a fertile soil in the aged. The declining health is attributed to old age,

and while cancer usually advances very rapidly it is often slow in getting a start, but when once started makes rapid progress.

The portal circulation does most of the scavenger work of the system, and it is not strange that metastatic deposits from rectum, uterus, or other viscera should find a lodgment here. Sometimes jaundice and ascites are present, depending upon the seat of the lesion. There is never any question about true enlargement of the liver, as the uneven hob-nail feeling is easily felt by the examining hand.

The most usual source of error is in syphilitics, as the liver may show uneven enlargement, and there may be nausea, loss of appetite with subsequent wasting, and still while pain is present, it is not of the excruciating character of cancer. The Wassermann reaction and salvarsan naturally follow, and should clear away any doubt as to diagnosis.

Hypertrophic cirrhosis may suggest itself, but should be excluded by the alcoholic history, the morning vomiting, the splenic enlargement which is not present usually in cancer, the ascites much more marked in the greater portal interference of cirrhosis, the absence of the severe pain, and the longer course of the disease.

Cancer of the liver, while not always accompanied by marked jaundice, frequently gives a pale, clay-like stool, due to absence of sufficient bile. For the same reason periods of constipation become very intense and the fecal impaction resulting starts an autoinfection from the bowel, with chills and temperature.

#### APPENDICITIS.

In approaching the diagnosis of appendicitis I do so with the feeling that it is a condition which has been very much abused. That every pain over McBurney's point is appendicitis and should warrant immediate interference I think we all believe is a great mistake. In our zeal to remove the appendix let us bear several things in mind. Bowel stasis and constipation when chronic in character are precursors of an inflamed intestine. Proper toilet of the bowel with a sufficient lymphatic drainage by salines into the intestine frequently removes immediate cause of the attack.



The uterine appendages, particularly the tubes and ovaries, are a frequent source of suspicion. A ruptured ovarian cyst and tubal pregnancy give many of the symptoms and are surgical from the start. An acute attack of appendicitis, with vomiting, later becoming fecal in character, hiccough, chill, rapid rise in temperature and pulse, generalized pain, later becoming localized, paralysis of the gut and suppression of urine, is a familiar picture, and requires immediate intervention if we are to operate at all.

There are, however, many cases which never reach this stage, showing only the nausea, slight vomiting, and some tenderness. In this class the rapid examination of the blood and the presence of a slight leucocytosis, the presence of indican, and a further examination of the blood at four or six hours intervals will keep the physician in close touch with the progress of the attack.

Occasionally we will find cases with walled-off adhesions which are stubborn and continue to present the rapid running pulse suggesting the presence of hidden pus. Where this condition is suspected, exploratory incision is imperative, but only to the point of pus evacuation and drainage. It is well to remember that the low forms of streptococci found in these cases are prone to spread very rapidly, starting a very virulent general infection if the adhesions surrounding the pus are broken down indiscriminately. Release the pus, but don't start a general infection.

Renal and hepatic colic are sometimes diagnosed as appendicitis. The vomiting in both is very severe and almost projectile; the pain radiates into the pelvis and scrotum or even into the leg. The pains are deeper and radiate more into the back. In renal colic blood is usually found in the urine, and in hepatic colic, if the occlusion is in the common duct, jaundice follows. Occlusion of the cystic duct does not always produce it.

#### GALLSTONES.

Gallstones are more often found in women, probably because of the sedentary lives they lead. The diagnosis and symptoms depend upon the location.

Each case is a law unto itself. The high liver, who has stored up a large number of stones in his gallbladder where they re-

main for years until a blocking of the cystic duct starts an acute cholecystitis, becomes at once a surgical case. I have seen such develop empyema with rupture through the abdominal wall.

The type which most interests the medical diagnostician is the mild recurrent attack, which is called biliousness and indigestion. Its onset is accompanied with a little soreness at the end of the sternum, which possibly radiates slightly into the right shoulder. Nausea develops, with possible vomiting; a cathartic is taken and the attack passes over only to return in a few months. If icterus accompanies the attack, it is so slight as to be scarcely noticeable. It is the early recognition of this predisposition which anticipates the subsequent need of operation. An examination of the urine may disclose an icteroid tinge. Fecal examination may show the presence of a stone. These attacks in the aggregate are the precursors of trouble, and the general medical practitioner should be careful to give them the proper attention they deserve.

In touching so briefly upon the foregoing subjects I have done so with an idea of inviting a full discussion and to offer a presentation of the same from the surgical standpoint. The physician is compelled from the condition of things to arrive at a conclusion through a process of exclusion, and only by presenting his case in the fewest and clearest terms can he work to the best advantage with the surgeon.

The point that I would like to emphasize is that by careful analysis we can be close observers and good diagnosticians, and the indifferent guesswork of the past should be discouraged by every conscientious physician.

The laboratory and its more recent methods should be at the disposal of every physician, and no man should feel that he had done his full duty until he had made himself familiar with them. The examination of blood, sputum, feces, pus, stomach contents, the Wasserman and Noguchi tests, X-ray diagnosis, clorimeter and serum tests should be familiar to every physician.

Examining the urine merely for albumen and sugar and then resting content is a gross form of negligence. The disappearance of sugar in a urine, with rapid increase in acetone and diacetic

acid and a subsequent attack of diabetic coma, is not consoling to the physician when it might have been avoided by a personal knowledge of laboratory methods and findings.

We are often not loath to spare ourselves the trouble of a painstaking examination and forget that the body is a complex organism. The involvement of one organ in any marked degree usually implicates some other structure at the same time. It is a complete inclusion of everything involved that should be our aim. If we become specialists by careful observation we can better note the psychological moment when the surgeon and skilled specialist should be called. If we do this, his assistance will be most valued.—*International Journal of Surgery.*



## Extracts from Home and Foreign Journals.

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### SURGICAL

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#### SPINAL ANAESTHESIA.

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The author presents a report on 400 operations conducted under stovaine-glucose spinal analgesia. The series comprised 212 abdominal operations. There was in the series no case of failure to enter and inject the spinal sac. The patients were mostly young soldiers, and the author had had the advantage of three years' previous experience with the procedure.

The height and duration of the analgesia that one may expect to obtain after a given injection can be readily estimated beforehand with comparative certainty by the use of an injection compound of a higher specific gravity than the spinal fluid. The solution containing 5 per cent stovaine and 5 per cent glucose is heavier than cerebrospinal fluid; it has a specific gravity of 1023, that of the cerebrospinal fluid being 1007. This means that, by slightly elevating the pelvis of the patient before injection in the lateral position, the solution can be localized to any given segment of the spinal cord, as the solution will flow to the most dependent part of the curve of the spinal canal and the height of the analgesia thus be determined before any injection is given.

As regards the duration of the analgesia, the author found that, with trifling variations, an injection of 0.9 c.c. of this solution, which contains  $4\frac{1}{2}$  cg. of stovaine, maintains analgesia to the level of the umbilicus for forty-five minutes. This gives ample time for operations on hernia and appendicitis. The amount of the solution used can be increased, and in one case in the series the injection of 1.2 c.c. (or 6 cg. of stovaine) was ample for the performance of the operation of gastrojejunostomy. This was a severe test of the method, and its success a striking demonstration of its potentialities, as complete analgesia was maintained at the level of the xiphisternum for the forty minutes required to complete the operation.

The after-effects of injection in the series were fairly constant. When the analgesia extended above the umbilicus, in 24 per cent of the cases slight faintness or nausea came on from ten to fifteen minutes after injection. This passed off in ten minutes, when the patients became drowsy and comfortable. On returning to the ward 7 per cent vomited; among these were several cases of abdominal trouble who had been vomiting before operation. Headache was reported in 40 per cent of the cases. It was usually mild and seldom interfered with the patient's sleep. In 35 per cent of the cases there was no discomfort of any kind either during or after operation.

Life-saving operations can be performed under spinal analgesia in cases where chloroform or ether is inadmissible, such, e.g., as amputations of the leg for diabetic gangrene or in a patient with advanced cardiac disease. With stovaine analgesia there is an absence of shock during operation which is not obtained under inhalation or any other form of anæsthesia. Also, the muscular relaxation is so complete that much less time is required to complete an operation than if chloroform were used. To obtain the best results the operator must have experience of the technique. It is among the first 50 or 100 cases injected that incomplete analgesia or other troubles are likely to occur.—J. W. H. Houghton in *Monthly Cyclopedic and Medical Bulletin*.

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#### EARLY REMOVAL OF GALLSTONES.

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Dr. A. E. Benjamin (*Jour.-Lanc.*, Dec. 1, 1912) believes that early removal of gallstones with preservation of the gallbladder will prevent disease of this and contiguous organs. He concludes:

1. Gallstones are not normal residents of the gallbladder.
2. They are the product of infection from the alimentary canal and a late complication of the microbic invasion of the gallbladder.
3. Many of the severe gastro-intestinal symptoms are due to the presence of gallstones lodged in the biliary tract.
4. Cholecystitis resulting in production of gallstones will recover less rapidly when stones are present.
5. Whenever stones can be diagnosed, an operation should be advised.
6. Gallstones often migrate from the gall-

bladder to cystic or common duct and later lodge there, causing destruction of the tissue and obstruction of the duct. The operative mortality is 3 per cent when in the gallbladder, and 11 per cent when in the common duct. 7. Inasmuch as an operation for gallstones is usually one of "terminal events," an operation should be performed, if possible, before they are formed, viz., in the cholecystitis period. 8. The interdependence of the gallbladder, stomach, liver, and pancreas is such that the gallbladder should be preserved in all cases where it is not hopelessly diseased and unable to regain its function. 9. The frequency with which pancreatitis is associated with gallstones in the common duct makes the gallbladder an essential organ to assist in the drainage of the biliary passages in pancreatitis, and it should be saved. 10. The percentage of cancer associated with and following the irritation of gallstones in the biliary tract, should urge all practitioners to recognize their responsibility in a case of postponed operation for gallstones.—*International Journal of Surgery*.

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CIRCULAR RESECTION AND SUTURE OF THE AXILLARY ARTERY FOR  
TRANSVERSE LACERATION BY FRACTURE-DISLOCATION OF  
ANATOMICAL NECK OF THE HUMERUS.

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J. J. Buchanan, M.D., in *Surgery, Gynecology, and Obstetrics* for December, 1912, reports a case in which the axillary artery was torn through about four-fifths of its diameter in its third portion, at the point of emergence of the subscapular and posterior circumflex branches. These branches were tied and the ends of the torn vessel cut away to provide smooth edges for suturing. There was some atheroma of the vessel, which prevented through-and-through suturing, on account of the breaking off of the intima which would have therefrom resulted; and but two guy sutures were used, instead of three, as in the technic of Carrel. The variation from this technic is interesting, as indicating that in vessel surgery, as in other details, we are allowed some latitude. Another point of interest lay in the fact that the wound in the vessel had been plugged firmly by the broken-off humeral head, the edge of the bone fitting into the laceration, so that there was



but little local hemorrhage. After closure of the wound by circular suture a long catgut ligature was placed around the artery, loosely tied, and its ends brought out of the wound. This provided for quick ligaturing in the case of hemorrhage, and, while not proving subsequently necessary here, it is certainly a very wise precaution.

The author also reviews the literature upon the subject, and cites briefly twenty-nine cases of arterial suture.—*New Orleans Medical and Surgical Journal*.

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#### TREATMENT OF CONGENITAL CLUB-FOOT.

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Savariud (*Presse med.*) says that the surgeon who is treating club-foot should have at his disposal a series of means varying in accordance with the severity of the deformity, the social position of the child, and the amount of assistance to be expected from the mother or other persons surrounding him. Treatment should be begun as soon after birth as possible by daily replacing the parts under the direction of the physician. Between these replacements the foot should be kept in a normal position by some sort of apparatus. Later, to this treatment may be added, when needed, tenotomy and forced replacement under chloroform. After this, massage and apparatus are to be continued. In country children who will get less care, operation on the bones may be done earlier; in the young child subcutaneous removal of the osseous nuclei from the bones, and in older children astragalectomy with cuneiform resection, may be done. Plaster apparatus must be applied at once. The patients operated on must never be lost sight of, lest we get bad results. This deformity is probably due to faulty position of the foot during intrauterine life, early in pregnancy. The result depends on the degree of the deformity, degree of reducibility, shape of the foot, age of child, and circumstances of life. A long flexible foot will give better results than a short stubby one.—*Charlotte Medical Journal*.

## OBSTETRICAL

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### ZINC CHLORIDE IN CHRONIC METRITIS.

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The following treatment for chronic metritis advocated by J. Mocquot and J. Mock shows a number of marked advantages, especially as to the permanency of results:

Following a careful cleansing and drying of the vagina the authors determine the permeability and position of the uterus with a sound. A fine cannula having minute lateral openings near its extremity is then introduced to the uterine fundus and 2 or 3 c.c. of a 5 per cent solution of cocaine or novocaine injected while the cannula is gradually withdrawn. After waiting five minutes a tampon is placed beneath the cervix to protect the vagina and the cannula is reintroduced and 1 to 2 c.c. of the zinc chloride solution is injected. The solution may be more evenly spread over the mucous membrane by rotating the cannula as it is withdrawn. The vagina is then to be irrigated but not tamponed.

The best results with this treatment were seen in cases of hemorrhagic metritis and in metritis following abortion. Subsequent conception and labor are not interfered with.—*The Med. Brief.*

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### IMMUNITY TRANSMISSION FROM MOTHER TO OFFSPRING.

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To summarize briefly the principal results of Famulener's experiments, it was found that goats actively immunized against sheep blood-corpuscles during gestation passively transmitted the specific hemolysin to their young. The colostrum was the chief agent in bringing about the passive immunization of the suckling. Sucklings which got the colostrum and first milk rapidly acquired a relatively high antibody content in their blood, which was well retained. When the immunization was done during the period of gestation the colostrum contained a high content of specific hemolysin, often much higher than the adult's serum at time of parturition. The hemolytic antibodies rapidly disappeared from the milk after the mother had been sucked by the young. The blood taken from the newly-born, before they were permitted the anti-

body colostrum showed no appreciable amount of hemolysin by the test used. The placenta played a minor role in the passage of hemolysins to young before birth—practically negligible in most cases. Mother goats, actively immunized against sheep-blood-corpuscles immediately after the birth of their young, failed to transmit any demonstrable immunity to their suckling young. The milk in some cases, contained no demonstrable hemolysins, but in others showed fairly large amounts. Apparently a very high degree of immunity is necessary before appreciable amounts of antibodies are excreted through the milk. Older sucklings apparently did not absorb the antibodies in an unchanged condition. The young animals (kids) did not respond, to any extent, in production of hemolysins following subcutaneous injections of foreign blood-cells (sheep).—*Journal of Infectious Diseases* (Chicago) J. A. S.

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#### UTERINE DEGENERATION OF UTERINE MYOMATA.

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Hertel (*Monatschr. f. Geburtsh. u. Gynak.*, September, 1912). The author believes that recent observations have shown that myomata can not be regarded as benign tumors. Hertel reports a series of 1,100 cases of myoma which came under his observation, among which 468 were operated upon, 176 treated conservatively, and 456 were not treated for various reasons. In twenty-nine instances out of the 468 tumors removed, malignant degeneration was present. In sixteen the uterine mucosa and in thirteen the muscular structures were involved. Moreover in this entire series, carcinoma of the cervix was found in eight cases. Sarcomatous degeneration was observed in thirteen of the women operated upon, and in no instance was it possible to make a diagnosis beforehand. In the majority of cases the submucous form of myoma underwent degeneration, as this is most likely to be subjected to irritation. The author considers that the frequency of malignant degeneration demands operative rather than conservative treatment in all cases and that careful observation and early operation will furnish the most favorable results.—*The Post-Graduate*.



### THE TREATMENT OF ECLAMPSIA.

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Freund (*Archiv. f. Gyn.*, Bd. XCVII, H. 3) presents his views, based on a series of 551 cases treated in the "Charite" in Berlin, in which most of the accepted methods of treatment were employed. The mortality of the series was 17.2 per cent, about equally divided between antepartum and postpartum cases. Among 355 cases delivered by operative means, there were 56 deaths, from which he deducts 10 due directly to the operation. The fetal mortality in the entire series was 11.5 per cent. In view of the unsatisfactory state of the therapeutics of this disease, Freund states that the early operative delivery will hereafter be followed in the two large Berlin women's clinics, and the palliative treatment limited to the cases of postpartum eclampsia. Early and rapid emptying of the uterus was found apparently to give the best results. In judging the effects of this method, future statistics must take into account the interval between the first convulsion and the completion of the third stage, and not the number of convulsions antedating labor. After radical delivery, Freund believes that the various prognosis measures, such as the functional kidney test, etc., must be relied upon to dictate further measures in the treatment. Among the palliative measures, venesection is recommended on account of the depressant effect on the blood-pressure, particularly in postpartum eclampsia with a high-tension pulse. Freund is personally convinced that an exclusive narcotic method of treatment is valueless.—*Am. Jour. Obst.*—Miller.

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### THE TREATMENT OF PERFORATING WOUND OF THE UTERUS.

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Sigwart (*Berlinger klinische Wochenschrift*) of Bumm's clinic says that in spite of repeated warnings, physicians continue to use the curette improperly in cases of abortion, and as a result each year several cases of perforation of the uterus, with probably some serious injury to the intestine, mesentery, or omentum, are presented. Therapeutic measures have for their object, first, to rescue the patient from a life-threatening condition, and secondly,

to restore to usefulness a uterus, usually that of a young woman. The life of the patient is especially threatened when the contents of the womb at the time of perforation are already septic, and septic material finds its way into the peritoneal cavity, or when, on account of injury to the intestines, intestinal contents get into the peritoneal cavity. The question whether the uterus can be preserved or not depends upon the nature of the wound itself and upon the probable danger of peritonitis—that is, whether it is likely that healing would promptly occur without infection. If the conditions were such as to render it likely that the sacrifice of the womb would save the patient from consecutive peritonitis, while on the other hand its retention would increase that danger, the womb would, of course, be removed even in young women. It is always a question, however, whether through the total extirpation of the perforated uterus, in cases infected or supposed to be infected, the chances really are bettered to such an extent as to justify such a mutilating operation, and whether leaving the uterus in place really does constitute such a great danger. In five cases treated in Bumm's clinic, in which both the uterus and the intestines were injured, conservative operations was done, and not only the lives of the patients saved, but the function of the genital organs preserved. In not a single case was the uterus sacrificed either on account of the danger of infection or the nature of the wound.—*The Medical Fortnightly*.

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#### A STUDY OF 212 CASES OF CANCER OF THE UTERUS, WITH SPECIAL REFERENCE TO EARLY DIAGNOSIS.

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(George Kamperman, Ann Arbor, Mich., the *Journal of the Michigan State Medical Society*, Sept., 1912). Among other conclusions the author draws the following: In five-sixth of all cases of cancer of the uterus the disease is primary in the cervix, and in one-sixth of the cases it is primary in the fundus. The age limit of carcinoma of the uterus is wide from—28 to 75 years. The average is 48 years. Carcinoma of the cervix occurs most frequently between 35 and 55 years of age. Carcinoma of the fundus develops over a longer range of years than carcinoma of

the cervix. Patients with cancer of the cervix present a history of child-bearing in 92 per cent of all cases. Among patients with cancer of the fundus the percentage is 72. Cancer of the uterus, although more common in parous women, may develop in nulliparæ. The early diagnosis of carcinoma of the uterus depends on giving close attention to the earliest symptoms. An increase in bleeding in a woman approaching the menopause demands a careful investigation and a microscopic examination of tissue from the cervix and fundus. The first symptoms of carcinoma of the uterus in 73 per cent of cases is an increased menstrual or an irregular intermenstrual discharge of blood. Watery and foul discharge and pain are symptoms occurring at a later stage of the disease. Carcinoma of the uterus occurs in many healthy and robust looking women. Cachexia occurs only in advanced stages of the disease. The radical abdominal operation offers the only absolute cure for carcinoma of the cervix. Carcinoma of the fundus can be cured by a less radical operation. In inoperable cases, temporary relief can usually be secured by a palliative operation. Most of the patients afflicted with this disease die either from some terminal infection or from uremia.—*American Journal of Surgery*.

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#### GYNECOLOGICAL HINTS.

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Unless a careful investigation is made a urethritis is frequently mistaken for cystitis.

One of the most important uses of rubber gloves in gynecological practice is to keep the doctor's hands in good condition.

Granulations or small mucous polypi often form in the lower portion of the urethra and cause frequent and painful urination. They can easily be removed after the free application of a 2 per cent cocain solution. As they are usually associated with urethritis this must be cured by appropriate treatment as otherwise the growths will return. Not infrequently Skene's glands are infected and to remove the infection it is usually necessary to incise the small ducts (two in number) leading to them.



Intrauterine medication is a surgical procedure and should rarely if ever be performed in the doctor's office. The practice of applying equal parts of tincture of iodine and carbolic acid with an applicator to the interior of the uterus through a cervical canal that has not been thoroughly dilated has many times resulted in severe burns in the upper part of the vagina.

In the treatment of infection following abortion or delivery at term, when putrid material remains in the uterine cavity, this should first be thoroughly removed with the finger, blunt curette or forceps. Then an intrauterine douche of a weak antiseptic solution should be given, to be followed by another of sterile saline solution. Tincture of iodine, one ounce to two quarts of sterile water, is one of the best antiseptics to use in the uterus. Repeated intrauterine douches or medication of any kind is injurious to patients suffering from puerperal sepsis.—*International Journal of Surgery*.

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#### INTRAMURAL ABSCESS OF THE UTERUS.

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A. H. Harrigan believes that in order to form a correct conception of intramural abscess of the uterus and to retain its clinical entity, a rigid distinction should be made between it and uterine lesions occasionally seen during the progress of a pelvic thrombophlebitis. In the latter instance the abscesses are small and multiple, and result from the disintegration of venous clots, while in the condition under consideration the abscesses are usually single in number, lymphatic in origin, and mostly situated in one of the uterine cornua. Two explanations are offered for this predilection. According to Championniere, the intrauterine lymphatics converge toward the cornua. Also, as pointed out by Mercade, the embryonal prototypes of the uterus, the Müllerian ducts, occasionally persist in the cornual regions as vestigial structures. Possibly these two factors, the richness of the lymphatic vessels and the presence of fetal structures of diminished resistance, conduce to make this region additionally susceptible.—*Medical Record*.

LITHOPEDION IN THE ABDOMEN 32 YEARS.

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Mary Jones, a bright mulatto, age fifty and unmarried; no history of previous pregnancies and of healthy parentage. The patient was referred to me by her family physician last July, and was admitted to the hospital. An examination revealed a very greatly enlarged abdomen, and somewhat more enlarged on the right than left side. The patient, in addition to the enlarged abdomen, was suffering much from anasarca and some ascites. The most remarkable symptom pertaining to the abdomen was to be found in and around the umbilicus. For a space of two inches in diameter the tissues were black and insensitive, showing that from some internal pressure the circulation at this point had been interfered with and that gangrene was developing.

While the patient was in a poor condition for an operation, it was perfectly plain that it was the only thing left to be done. On opening the abdominal cavity a dense hard mass was found filling the whole abdomen. There were very few adhesions, and the tumor was rather easily removed. To the left of the tumor a small uterus was found with the left ovary, both in an atrophied condition. There were no other conditions connected with the operation that warrant special mention. The woman made a good recovery, and left the hospital at the end of three weeks.

The tumor, upon examination, was the shape and appearance of a large baby at full term, except there was lacking head and extremities, though rudimentary arms and legs could be seen. To examine this strange growth more carefully it was sawn longitudinally through, dividing it in lateral halves. It was dense and hard as bone; not only the outer portions but the petrification had extended entirely through. This lithopedion weighed something more than eleven pounds, and is still preserved in the hospital.

This case was evidently an abdominal ectopic gestation, the impregnated ovum falling from the fimbriæ into the abdomen, and there attaching itself. The placenta, which no doubt had been attached to the intestines, must slowly have been absorbed, as nothing could be recognized which might have been the re-

mains of that organ; except in so far as the umbilical cord was concerned, that was ossified for about three inches from the umbilicus.

The history of this woman, as told by herself and family, goes to show that thirty-two years ago she missed her period, which was absent several months and then began to re-occur at irregular times for five or six months, then disappeared. During all this time she was growing large, and attracted the attention of her friends, who constantly advised her to see a doctor, which she refused to do. At about what they took to be the 9th month of gestation she became very sick, suffered pain for quite a long time, but would not have a doctor called. The pains gradually wore off and she returned to her work, and has been able during all this long time to attend to most of the duties of housekeeping. —*Charlotte Medical Journal*.

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#### VOMITING OF PREGNANCY.

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A V. Lyon, in the American Journal of Clinical Medicine, calls attention to pernicious vomiting of pregnancy and its treatment by alkalies. This method of treatment was first advanced by S. H. Blodkett, who, quite by chance in examining a patient's urine in a case of persistent vomiting where a kidney lesion was suspected, found reactions showing acetone and diacetic acid, but no sugar. The use of five-grain doses of bicarbonate of sodium three times a day was followed by practically complete relief in a few days. In 150 similar cases recovery followed in all but two. Of these, 90 per cent occurred in pregnant women, 3 per cent followed operation and 2 per cent were unclassified. He concluded that the presence in the system of acetone and diacetic acid, as indicated in the urine, is not the cause of pernicious vomiting that can be relieved by the alkaline treatment; neither is the claim made that all cases of pernicious vomiting are due to this form of autointoxication. Nevertheless, this condition covers many cases, and the easy demonstration of acetone and diacetic acid is a valuable aid and an indication for the proper treatment. Lyon treated thirty-four cases similar in type to those mentioned,



all but three occurring in pregnancy. He gives sodium bicarbonate, from five to fifty grains a day. This may seem impossible when the patient is vomiting every morsel taken into the mouth, and in some cases vomiting when nothing is taken. In very persistent cases twenty grains of sodium bicarbonate may be dissolved in a glass of water and the patient given a sip occasionally. Part of this will be vomited, but some, nevertheless, will be retained. Within twenty-four hours the vomiting is lessened, more of the medicine is retained and the patient is convalescent. When dissolved in milk or coffee, it does not act so well; given by rectum it does not act at all. As soon as vomiting ceases the soda should be materially reduced, but should be continued in small amounts for a week longer. The hardest cases to cure seem to be those where persistent vomiting begins at about the second month of pregnancy, while those beginning at the sixth or eighth month are checked very quickly. In some persistent cases he has found veronal in two grain doses every two or three hours to be of great benefit.—*Medical Sentinel*.

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## MEDICAL

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### TREATMENT OF DUODENAL ULCER.

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The characteristic signs of duodenal ulcer are periodic attacks of severe pains usually appearing three to four hours after a meal and not rarely at night. The pains are generally very intense, and last for hours, as distinguished from the pains of simple hyperchlohydria, where relief can be much more readily obtained. The patients usually lose rapidly in weight so that a new growth may be suspected. Other symptoms are of less importance, except an intermittent motor insufficiency of the stomach of marked degree during the period of the pains. Conditions which may simulate the symptom complex of duodenal ulcer are gastric ulcer, cholecystitis, gastric crises and gastric neurasthenia with hyperacidity. In every case, internal treatment should first be tried. The patient must remain in bed for several weeks with hot applica-

tions on the abdomen and should live on milk, cream, thick gruels, with the addition of butter and yolk of egg, raw eggs, with sugar, rice, farina, etc. Where internal treatment does not bring about a cure, an operation should be advised. The transverse resection of the ulcer is always preferable to gastroenterostomy.—*The Medical Brief*.

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#### EYE TROUBLES CAUSED BY THE USE OF HAIR DYES.

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After reviewing the literature of the subject and citing some cases where injurious effects followed the use of hair dyes—such as edema of the lids, lachrymation, chemosis of the ocular conjunctiva, scotoma and optic neuritis—the author says hair dyes may be divided into four classes.

1. Decolorizing ( $H_2O_2$ ).
2. Vegetable tinctures (less frequently used).
3. Tincture with metallic bases (dyes more frequently used; among which are: caustic potash, nitrates of silver and mercury, bismuth, acetates of lead and copper, nitric and sulphuric acids, and sodium hyposulphite).
4. Tinctures based on aniline derivatives. (In this class should be placed most of the modern hair-dyes.)

His conclusions are:

First: All hair-dyes in use at the present time are more or less toxic in effect, and may give rise, under certain circumstances, to general and local eye troubles.

Second: The injurious effects experienced are of two classes; inflammatory and toxic, although both may be present at the same time. The trouble may be only ocular in character, or it may effect the general system as well as the eyes from the start.

Third: The dyes which do the most harm are those containing the aniline derivatives. As they are very easily prepared, these are the dyes most generally used.

Fourth: Fortunate as the aniline derivatives are powerful colorants, a small quantity of the dye is necessary to produce the desired results and there is, therefore, less danger to the eyes and the general health.—*The Post-Graduate*.

### TWO CASES OF COLLOID TUMOR OF THE THIRD VENTRICLE CAUSING DEATH.

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The first patient was found unconscious on the street, and on admission to the hospital the left pupil was larger than the right and the knee-jerks absent. The temperature, 98.7° on admission, rose to 105.4° before death a few hours later. The autopsy showed the presence of a round, semi-translucent tumor, lying in the anterior part of the third ventricle. It was about the size of a small marble, and attached by a fibrous band to the right choroid plexus.

The second case, an unmarried woman, aged 18, had suffered from nocturnal enuresis from childhood. Six months before death she commenced to suffer from headache. She was found dead in bed following an exacerbation of her headache. A tumor, similar in size and position to that present in the first case, was found at autopsy.

The histological examination in the two cases showed a fibrous outer capsule covering a layer of epithelial cells. The center was composed of hyalin material, with degenerated epithelial cells. Five similar cases had been previously reported.—Van Wert in *New Orleans Medical and Surgical Journal*.

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### DIGITALIS, THERAPEUTIC ACTION OF.

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As is well recognized, the therapeutic effect of digitalis in auricular fibrillation is so striking as to be practically specific; the rapid, irregular pulse is greatly slowed, and the symptoms display a remarkable improvement, owing to the fact that the slowed heart gains more diastolic rest. Clinical and experimental investigations were carried out by the authors which seemed to throw light on a matter hitherto obscure—namely, the method by which digitalis slows the heart in auricular fibrillation. It was shown that this was not due to the vagoinhibitory effect of the drug, since the injection of atropine did not interfere in any way with the action of digitalis or strophanthin in retarding the quick, irregular pulse of fibrillation. The next question to be answered



was whether the theory is correct which ascribes this retardation to the depression of conductivity that digitalis is known to exert; whether it is due to a cutting off at the bundle of His of some of the stimuli which pass over in rapid, irregular series from the fibrillating auricle to the ventricle. The researches, though giving no final answer to this question, went to show that depression of conductivity by digitalis is a vagus effect, and that, as the beneficial action of the drug in auricular fibrillation is due to a direct effect on cardiac muscle, it can not be wholly ascribed to the cutting off of impulses in the auriculoventricular bundle. The authors think it possible that digitalis reduces the excitability of the ventricular musculature to some extent, and thereby renders it less responsive to the stream of irregular stimuli showered down upon it from the fibrillating auricle;; but in either case, whether the benefit which patients with auricular fibrillation derive from digitalis be due to depression of conductivity or to lowering of excitability, it is probable that the drug produces those effects indirectly by improving the nutrition of the myocardium through an augmentation of its contractile power.—*Monthly Cyclopedia and Bulletin*.

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#### GELATIN AND BLOOD VISCOSITY.

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Having observed the existence of a certain relationship of the viscosity of the blood to hemophilia and anemia, the author undertook to ascertain how the viscosity was influenced in cases of severe hemorrhage by the administration of gelatin. He gave the gelatin internally in a 3 per cent solution and hypodermically in a sterilized 10 per cent solution, and estimated the viscosity of the blood before and at twenty-four-hour intervals after the administration of the remedy. It was found that gelatin causes an increase in the viscosity, especially when given under the skin. Thus in a case of hemoptysis the internal administration of 200 c.c. causes the viscosity to rise in ten days by 0.6 in relation to the original value, while the injection of 40 c.c. of sterile gelatin solution caused it to rise in twenty-four hours by 1.4. In the author's opinion, gelatin given hypodermically is less exposed to

fermentative process than when it is given by the mouth. The blood is also increased by the giving of gelatin, though the pulse rate is variable. Increase in the specific gravity of the blood is one of the factors in the hemostatic effect of gelatin.—*Monthly Cyclopedia and Medical Bulletin.*

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#### SOME NOTES ON THE USE OF ACONITE.

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The use of small, repeated doses of the tincture of aconite was formerly a favorite method of combating the early stages of sthenic fevers, especially in children; of late, however, the employment of the drug has become very limited. It is difficult to say whether the cause of this is due to the discovered impotency of the drug in bringing about the desired results, in the conditions for which it is commonly used, or whether it is on account of the early deterioration and loss of strength of this drug when kept in stock for any length of time.

Rudolph and Cole (*Journ. Am. Med. Sci.*, December, 1912,) in order to determine the effect of the so-called medicinal doses of the tincture of aconite usually recommended by the pharmacopœias and most of the text-books on therapeutic, administered this preparation to a series of 55 cases. Some of these had normal pulses, others had rapid pulses; of the latter, some had fever, others had none. In not one of the cases did the tincture of aconite show any decided diminution in the pulse rate or blood-pressure. The doses of the tincture of aconite (B. P.) used, ranged from one minim every ten to fifteen minutes, to ten minims every hour for eight to ten doses. These preparations used in the first number of cases were taken from the shelves of a hospital pharmacy, and were said to have been obtained from three different reliable wholesale druggists. A fresh stock of the tincture of aconite was obtained from a reliable firm, which guaranteed the preparation to be tested both physiologically and by assay. Similar negative results were obtained, when this was administered to the remainder of the cases. This same fresh tincture was tested three months later and reported "very weak." These facts would seem to indicate that tincture of aconite de-

teriorates very early on standing; and that the drug, when administered in the doses mentioned, is practically inert as far as bringing about the results desired in the conditions named above.

While the above statements concerning the tincture of aconite may be true, nevertheless, aconite is an important therapeutic agent in a number of conditions. A fresh, potent tincture of the drug when used in doses of ten minims (U. S. P.) three times daily, often markedly aids the iodides in lowering the blood-pressure in cases of arterio-sclerosis, in patients with large over-acting hearts without discoverable valvular lesions.

Of the alkaloids obtained from aconite, aconitine is the only one of therapeutic importance. This occurs in two forms, the amorphous aconitine and the crystalline aconitine (potent), which is about ten times stronger than the former. This is not only the most reliable of the aconite preparations, but it is also the most poisonous of all the galenical alkaloids, so that the utmost precaution should be exerted in dispensing the drug. Of especial use, is the potent cases of headaches and neuralgias of anæmic patients. When given three times daily in doses of 1-400—1-250 grains, together with an equal sized doses of atropine and suitable hæmatinics, this preparation serves admirably in the condition named. Its use, however, must be persisted in for weeks in order to prove of any lasting benefit. Crystalline aconitine in doses of 1-250 gr., combined with arsenic and atropine, is also of service in chronic cases of sciatica.—*Medical Review of Reviews*.

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#### PTOMAIN-PRODUCING INTESTINAL BACTERIA. ----

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D. M. Bertrant and A. Berthelot conclude that the *Bacillus aminophilus intestinalis* has well-marked saccharolytic and aminolytic properties. Varying the different nutrient substances with the exception of the aminoacid, the microorganism may remove the carboxyl group; when this aminoacid is the only substance containing nitrogen and carbon, it is able to show both properties at the same time. It can get its nitrogen and carbon from various organic molecules. As this microorganism splits off car-



bon dioxide very easily from aminoacids in various conditions of media, it seems possible, then, to try to supplement the few ideas we have at present on the production of ptomaines in the intestinal tract and to study their acute and chronic action in the human organism. The authors succeeded in obtaining from human feces two other bacteria, one of them rather different from the *Bacillus aminophilus intestinalis* formerly studied, which microorganisms can produce imidazolethylamine by the same process. It was, indeed, very probable that this bacillus was not the only one in the intestinal flora able to produce such an action. These microorganisms have only been isolated from patients suffering from chronic autointoxication with some intercurrent intestinal disorder. The point particularly interesting is that it has always been impossible to get a growth from feces of people enjoying very good health, exactly as happened in the cases in which the authors isolated formerly "tyrosinolytic" bacteria. They conclude that by the very simple technique proposed more than a year ago they have been able to isolate from the human intestinal tract microorganisms capable of producing a very active base—namely, B-imidazolethylamine—from histidine; further, its isolation does not require more than three days, and frequently one can obtain a pure culture in less than forty-eights hours.—*Medical Record*.

## Editorial

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**PUBLISHER'S NOTICE**—The Journal is published in monthly numbers of 48 pages at \$1.00 a year, to be always paid in advance.

All bills for advertisements to be paid quarterly, after the first insertion of the quarter.

Business communications, remittances by mail, either by money order, draft, or registered letter, should be addressed to the Business manager, C. S. Briggs, M. D. corner Summer and Union Streets, Nashville, Tenn.

All communications for the Journal, books for review, exchanges, etc., should be addressed to the Editor.

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### A CURE FOR TUBERCULOSIS. (?)

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Now that Dr. Friedrich Franz Friedman is in this country and has been given some charity patients to treat, we would await with anxiety the result were we not fairly sure that the bottom will fall out, the bubble burst—not because we are so pessimistic as to think tuberculosis incurable by therapeutic agents other than good food and hygiene, do we say this, but rather because Dr. Friedman is quackish in his actions, and we have never taken stock in anything that might be characterized in this way.

Even though Dr. Friedman's cure proved as wonderful as he would have us all think it is, we must still place his name among the great quacks.

His application for patent rights on this remedy before he could have satisfactorily proven even to himself the efficacy of the treatment, his claims for it that it will cure all forms of tuberculosis unless hopelessly advanced, his coming to this country even before his own people had acknowledged the good of his treatment, and finally the way he opened up an expensive and fashionably located office in New York, where patients were to be treated for money, all point to quackish methods. Unfortunately for Dr. Friedman, he can not practice for money in the State of New York until he passes the necessary examination; so he may return home a wiser but poorer instead of richer man.

We hope there is something good in his treatment, but we are skeptical about these one-dose therapeutic measures in chronic

constitutional diseases like tuberculosis and syphilis. Untold harm has already been done by treating people with "606", and at the time having them believe they were cured. Of course only a few doctors at the present time rely on one or two doses of "606" to cure syphilis, but many of those patients who have already taken the "606" cure and think they are well, will marry and transmit the disease to their wives and offspring before they learn they still harbor this disease. The same danger hardly exists with Friedman's treatment, but the people, if not the profession, are only too willing to believe in one-dose cures, and we believe Dr. Friedman pondered over this credulity before he sailed for this country, not realizing that we had any medical practice laws at all.

In all probability some day a cure for tuberculosis will be found, but we can hardly conceive of pulmonary or meningeal tuberculosis, or tuberculosis in any organ inaccessible to local treatment, yielding to one dose of any therapeutic agent. There are more cures for tuberculosis today than ever before, and we must confess that tuberculin, properly used, has had something to do with the lower mortality as well as improved sanitation and hygiene, but while acknowledging all the improvements in treatment, we still must confess that we believe natural immunity is playing a part, and that some day this immunity will be practically complete. In the meantime we must do our best and not hope to get a remedy that in one dose will so strengthen the body's resistance that it can ward off a pulmonary tuberculous focus so completely as to prevent toxins elaborated there affecting the general economy.

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REVISED ITINERARY OF THE TRAVEL STUDY TOUR TO THE XVII  
INTERNATIONAL MEDICAL CONGRESS, LONDON, .AUG 6-12, 1913.

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Thursday, July 3—Leave New York by North German Lloyd  
Twin-Screw Steamship "Bremen."

Paris—Arrive Saturday, July 12, noon. Sunday, July 13<sup>th</sup> Monday, July 14; Tuesday, July 15, leave Paris at about 5 p.m. for Munich.



Munich—Arrive Wednesday, July 16, 8:30 a.m. Thursday, July 17, leave for Vienna at noon.

Vienna—Arrive Thursday, July 17, 9:30 p.m. Friday, July 18; Saturday, July 19; Sunday, July 20, leave for Marienbad 8:20 a.m.

Marienbad—Arrive Sunday, July 20, 4:30 p.m.

Carlsbad—Arrive Monday, July 21, about noon.

Joachimstal—Excursion from Carlsbad on Tuesday, July 22. Leave Carlsbad Wednesday, July 23.

Dresden—Arrive Wednesday, July 23, about 4 p.m. Thursday, July 24, leave for Berlin, about 4 p.m.

Berlin—Arrive Thursday, July 24, about 6 p.m. Friday, July 25; Saturday, July 26; Sunday, July 27, excursion to Potsdam; Monday, July 28, leave for Frankfurt a.m., at 8 p.m.

Frankfurt a.M.—Arrive Tuesday, July 29, 8 a.m.

Wiesbaden—Arrive Tuesday, July 29, at noon.

Homburg a.H., Bad Nauheim—Wednesday, July 30.

On the Rhine—Thursday, July 31.

Cologne—Arrive Thursday, July 31, 5 p.m.; Friday, August 1, leave 3 p.m.

Brussels—Arrive Friday, August 1, 7 p.m. Saturday, August 2; Sunday, August 3, leave for the Hague, 9:30 a.m.

The Hague—Arrive Sunday, August 3, 1:30 p.m. Spend evening in Scheveningen; Monday, August 4, leave for Amsterdam, 10:24 a.m.

Amsterdam—Arrive Monday, August 4, 11:22 a.m. Leave Monday, August 4, 9:45 p.m. via Hook of Holland for London.

London—Arrive Tuesday, August 5, 8:30 a.m. Wednesday, August 6; Thursday, August 7; Friday, August 8; Saturday, August 9; Sunday, August 10; Monday, August 11; Tuesday, August 12; Wednesday, August 13.

The tour ends on Wednesday morning, August 13, and members of the party may return independently according to their own personal plans. On account of heavy west-bound ocean traffic, however, it is most advisable to book for the return definitely, before sailing for New York.

Dr. RICHARDS KOVACS, Secretary.

236 East 69th Street, New York City.

## ASSISTANT IN THERAPEUTICS (MALE).

March 10, 1913.

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The United States Civil Service Commission announces an open competitive examination for assistant in experimental therapeutics, Philippine Service, for men only. From the register of eligibles resulting from this examination certification will be made to fill a vacancy in the position of research assistant in experimental therapeutics in the Bureau of Science, in Manila, Philippine Islands, at a salary of \$2,000 a year, and vacancies as they may occur requiring similar qualifications, unless it is found to be in the interest of the service to fill any vacancy by reinstatement, transfer, or promotion.

This position offers to the ambitious and capable physician a wide field for experimental therapeutics work. The Bureau of Science possesses one of the largest and most favorably known research laboratories in existence and is in the immediate vicinity of the Philippine General Hospital, which is probably the best institution of its kind in the Eastern Hemisphere. In view of the excellent opportunities presented qualified persons are urged to enter this examination.

It will not be necessary for applicants to appear at any place for examination. Their eligibility will be determined upon the evidence furnished in connection with application and examination Form B. I. A. 2, concerning their training and the work which they have accomplished.

Applicants must be graduates in medicine, and in addition must show at least one year's postgraduate experience in conducting laboratory research work in experimental therapeutics, or, as equivalent to the year's work, they may submit copies of publications prepared by them, evidencing their ability to carry on original experimental therapeutic work. A person is desired who is especially qualified in research, and it is stated that, for one who is satisfactory, the prospects of promotion are excellent.

Statements as to training, experience, and fitness are accepted subject to verification.

Applicants must have reached their eighteenth but not their fortieth birthday on the date of the examination.

The medical certificate on Form B. I. A. 2 must be executed by some medical officer in the service of the United States. Applicants should appear before medical officers of the Army, Navy, Indian, or Public Health and Marine-Hospital service. If such officer can not be conveniently visited, a pension-examining surgeon may execute the certificate. Special arrangements have been made with pension-examining boards throughout the country to give such examination for a fee of \$2, to be paid by the applicant. This certificate must not be executed by the family physician of the applicant. The medical officer should indicate his rank or official designation on such certificate. When it is impracticable, by reason of the applicant's distance from a Government physician or a pension-examining surgeon, to have the medical certificate executed by such physician, it may be executed by any reputable physician. Such person may be required to undergo another examination in case of appointment.

Each applicant will be required to submit with his application a photograph of himself, taken within three years, which will be filed with his papers as a means of identification. An unmounted photograph is preferred. The name and date of examination, the competitor's name, and the year in which the photograph was taken should be indicated.

This examination is open to all male citizens of the United States who comply with the requirements.

Special attention is invited to the favorable conditions in respect to transportation, leave of absence, clothing, etc., in this service, printed hereon.

Persons who comply with the requirements and desire this examination should at once apply for Form B. I. A. 2 to the United States Civil Service Commission, Washington, D. C.; the secretary of the board of examiners, postoffice, Boston, Mass., Philadelphia, Pa., Atlanta, Ga., Cincinnati, Ohio, Chicago, Ill., St. Paul, Minn., Seattle, Wash., San Francisco, Cal.; customhouse, New York, N. Y., New Orleans, La., Honolulu, Hawaii; old customhouse, St. Louis, Mo.; or to the chairman of the Porto Rican



Civil Service Commission, San Juan, P. R. No application will be accepted unless properly executed, including the medical certificate, and filed with the Commission at Washington prior to the hour of closing business on March 10, 1913. In applying for this examination the exact title as given at the head of this announcement should be used in the application.

Issued February 6, 1913.

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SPRING CLINIC OF THE AMERICAN ASSOCIATION OF  
ORIFICIAL SURGEONS.

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The spring clinic of the American Association of Orificial Surgeons will be held in the Surgical Amphitheatre of Hering Medical College, corner of Wood and York Streets, Chicago, Ill., April 23-4-5-6. Dr. E. H. Pratt, A. M., M.D., LL.D. and assistants will operate on clinical patients, demonstrating the fundamental principles of Orificial Surgery as applied in the treatment of chronic diseases and as an adjunct to major surgery in general.

On April 26, the fourth and last day of the clinic, Dr. Pratt and assistants will demonstrate other therapeutic measures which have been recently introduced to the medical profession, including abdominal calisthenics, manual therapeutics, high frequency treatment of internal organs, spondylotherapy and new hydro-therapeutic measures. These measures will be introduced and demonstrated not as curative measures within themselves alone, but as adjuncts to the ordinary armamentarium of the physician.

Tuition to this clinic course is free to all practising physicians, medical students and nurses.

Physicians are invited to bring clinical cases for operation. No operating fee will be charged. Excellent hospital accommodations will be provided. Opportunity will be presented for the physicians bringing clinical cases to assist personally in the operation.

The clinic headquarters will be the Hotel La Salle, where reservations may be made in advance. For further information, address the secretary of the association.

Des Moines, Iowa.

W. A. GUILD,  
Secretary-Treasurer.

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COURSE OF CLINICAL LECTURES.

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New York Skin and Cancer Hospital, Second Avenue, corner 19th Street. The governors of the New York Skin and Cancer Hospital announce the following course of clinical lectures and demonstrations in the out-patient hall of the hospital on the following Wednesday afternoons at 4:15 o'clock on "Surgical Diseases of the Skin:"

April 2, Dr. Bulkley; April 9, Dr. Bulkley; April 16, Dr. Bulkley, April 23, Dr. Bulkley; April 30, Dr. Bulkley; May 7, Dr. Bulkley. "Surgical Treatment of Malignant Diseases," May 14, Dr. Bainbridge.

Each lecture will be illustrated by cases, models, colored plates, photographs, etc. The lectures will be free to the medical profession, on the presentation of their profession cards.

CHARLES C. MARSHALL,

March 5, 1913.

Chairman of Executive Committee.

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DEATH OF DR. WM. C. WILE.

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We regret to note the death of Dr. Wm. C. Wile, of Danbury, Conn., who died recently at his home at the age of 66 years. Dr. Wile was a well known editor and writer.

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OUR PREMIUM THERMOMETER.

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We are sending out with every issue a large number of sample copies of the Journal to physicians of the Southern States. To every new subscriber we offer besides the subscription a handsome clinical thermometer in aluminum case with chain and pin. We hope our readers will see the advantage of such an offer and send in his subscription without delay. We refer readers to advertisement of this offer in the advertising form of this Journal.

## Reviews and Book Notices

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Text-book of Ophthalmology in the Form of Clinical Lectures, by Dr. Paul Roemer, Professor of Ophthalmology at Greifswald. Translated by Dr. Matthias Lanckton Foster, Member of the American Ophthalmological Society; member of the American Academy of Ophthalmology and Oto-Laryngology, with One Hundred and Eighty-Six Illustrations in the Text, and Thirteen Colored Plates. Vol. III. New York. Rebman Co, 1123 Broadway.

Rebman & Co. purveys for the profession the best class of foreign publications in the form of careful translations. This work is one of the productions along this line that should become popular, not only with the specialist, but also with the general practitioner. It is Vol. III of the series and treats in No. XIII, of the Pupil; No. XIV, Paresis of the Ocular Muscles; No. XV, Neurology of the Eye; No. XVI, Diseases of the Choroid; No. XVII, Diseases of the Optic Nerve; No. XVIII, Diseases of the Retina; No. XIX, Functional Testing of the Eye. The book is well arranged and the illustrations are numerous and helpful. We take pleasure in recommending the work to all students and practitioners interested in this special division of medicine.

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Chloride of Lime in Sanitation, by Albert Hooker, Technical Director Hooker Electrochemical Company, New York. John Wiley & Sons, London; Chapman & Hall, Limited, 1913.

We acknowledge with thanks to the courteous publishers a copy of this useful and practical guide in the employment of one of the most valuable agents of purification and disinfection—chloride of lime. It should prove of great value to health officers, municipal guardians of health and city boards of health. The high rank chloride of lime shows in tables, statistics, etc., is well worthy of consideration. The reader may gather from the table of contents of this book something of its character: Preface; Chloride of Lime; Chloride of Lime for Water Purification; Sewage Disinfection; Street Sprinkling and Flushing; Epidemics, Surgery and General Sanitation; Chloride of Lime on the Farm; The War Against the Infectious House Fly; Abstracts and References. We take pleasure in commending the work to all interested in sanitary science and disease prevention.



**Progressive Medicine**—A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D., Professor of Therapeutics and Diagnosis in the Jefferson Medical College of Philadelphia; Physician to the Jefferson Medical College Hospital; one Time Clinical Professor of Diseases of Children in the University of Pennsylvania; Member of the Association of American Physicians, etc. Assisted by Leighton F. Appleman, M.D., Instructor in Therapeutics, Jefferson Medical College, Philadelphia; Ophthalmologist to the Frederick Douglass Memorial Hospital; Instructor in Ophthalmology, Philadelphia Polyclinic Hospital and College for Graduates in Medicine. Vol. 1. March 1913. Surgery of the Head, Neck, and Thorax—Infectious Diseases, Including Acute Rheumatism, Croupous Pneumonia, and Influenza—Diseases of Children—Rhinology and Laryngology—Otology. Lea & Febiger, Philadelphia and New York, 1913.

The March number of this excellent quarterly is before us. Like its predecessors it is unequalled for the amount of useful, practical information it presents. The subjects treated of are brought fully abreast with the times. Most judicious selections have been used in presenting the various subjects and the reader can not help acquiring a lot of information he can get in no other way. This number contains the following: Surgery of the Head, Neck and Thorax, by Charles H. Frazier, M.D.; Infectious Diseases, Including Acute Rheumatism, Croupous Pneumonia and Influenza, by John Ruhräh, M.D.; Diseases of Children, by Floyd M. Crandall, M.D.; Rhinology and Laryngology, by George B. Wood, M.D.; Otology, by Arthur B. Duvall, M.D.; Index. For the busy practitioner who has not the time to study his way to information through text-books and current medical literature this serial presents a valuable recourse, as it provides a ready way to the most recent advances in every branch of medicine.

## Publisher's Department

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The value of the bromides as therapeutic agents has only been accentuated in recent years. Many chemical modifications of the bromide salts have been offered, but not a single one has been found which possesses properties that make it more desirable for the practitioner than the well known compounds. On the other hand, the administration of the pure salts is often attended by certain disagreeable results, commonly embraced under the name of bromism. These disagreeable by-effects can be almost entirely eliminated by the use of adjuvants and correctives. Such a combination is offered in Neurosine, which represents the most careful product of pharmaceutical skill, providing the profession with a nerve sedative which is safe and efficient.

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It is during the spring months more particularly that the physician is called upon to treat patients, who though not ill enough to be in bed, are not at all well. Their appetite is capricious, they sleep indifferently, or even if they sleep soundly they are not refreshed, and in the morning they are almost as fatigued and ill at ease as was the case on retiring. Upon awakening there is frequently an aching sensation in the loins, sometimes in the lower limbs, which may partially wear off as the day progresses, but there is at all times a vague, undefined, uneasy painful feeling.

The symptoms are very much like those experienced in malaria, but the causes are entirely different and a different treatment is necessary.

This condition arises from the fact that in the spring the eliminative functions do not present their usual activity owing to the torpor and locked-up secretions which have existed during the winter months, when the skin neglects its duties and the kidneys are overworked.

If the condition remains neglected the probable result will be sooner or later a pronounced attack of rheumatism or grippe in one or another of its forms. All that is needed to induce such an attack is a sudden change in the weather or the exposure on the

part of the patient to cold or wet or to a combination of both. This is due to a latent diathesis to which every adult is liable.

The necessity of a powerful eliminative in every prescription for rheumatism and grippe is self-evident. While anti-pyretics and anti-periodics may slightly stimulate the features of the disease, a complete cure can not be expected until the poisons are thoroughly eliminated from the system and the diseased organs enabled to resume normal functions.

In the treatment of all rheumatic, neuralgic and grippy conditions, Tongaline, by promoting the absorptive powers of the various glands which have been clogged, and by its stimulating action upon the liver, the bowels, the kidneys, and the skin, will stimulate recuperation and prevent sequelæ.

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Notwithstanding the large number of Hypophosphites on the market, it is quite difficult to obtain a uniform and reliable syrup. "Robinson's" is a highly elegant preparation, and possesses an advantage over some others, in that it holds the various salts, including iron, quinine, and strychnine, etc., in perfect solution, and is not liable to the formation of fungus growths. (See advertisement in this issue.)

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Anedemin Tablets manufactured by Anedemin Chemical Company, of Chattanooga, Tenn., are being used by physicians with success in dropsical conditions. Anedemin is far superior to digitalis and the prescriptions hitherto in use for rapid removal and permanent relief of dropsical effusions, whether due to cardiac, renal or hepatic diseases. Anedemin is nontoxic, and patients do not have to be watched nor kept recumbent, as in digitalis administration. Anedemin gives relief to many apparently hopeless incurables, victims of mitral regurgitation, Bright's diseases and cirrhosis; prolonging many lives. Its actions on the heart, liver and kidneys are entirely satisfactory. Dr. Rowe, of Kentucky, states that in dropsical effusions Anedemin gives quick results, removing the water quickly, and dropsy seldom returns when anedemin is used for a sufficient time. Anedemin Chemical Co.



are very liberal in sending samples to all who are interested in their remedy and are very conservative in making extravagant claims, though Anedemin deserves considerable credit among other remedies and is well worth notice by all physicians who come in contact with dropsy.

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# NASHVILLE JOURNAL — OF — MEDICINE AND SURGERY

CHARLES S. BRIGGS, A. M., M. D., Editor

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VOL. CVII.

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No. 4.

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## Original Communications

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### CONSTIPATION—MEDICAL TREATMENT.

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By E. S. McKEE, M. D., Cincinnati.  
Gynecologist to the Cincinnati Polyclinic.

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Com with and stipare to cram, crowd or press together. Shakespeare well describes it, "Constipated matter close compressed." My paper is limited to the medical treatment of constipation, which excludes not only the most interesting, but also the most valuable part of the treatment. Medicine in constipation should be and is a dernier resort. We have intestinal constipation, delayed passage of feces through the rectum, though defecation may be normal; second, where there is no delay of feces till final expulsion should take place, termed by Hertb, dyschesia. Treatment which would be appropriate to the one variety will often be quite inappropriate to the other. Many cases of headache, dizziness, drowsiness, indefinite pains, loss of ambition, catarrh of nose and throat, tachycardia, are merely symptoms due to constipation, and respond to treatment for that condition. Those who are not in possession of an X-ray may tell whether constipation is in colon or sigmoid flexure as follows:

Administer carmin to the patient. If found in the stool the next day, transit through the bowels is normal; if no carmin in stool, delay is in colon. If no stool, give injection sufficient to clear out



the sigmoid. If this shows carmin colored stools the delay is in the sigmoid.

It is like carrying coals to New Castle, to talk to the medical profession about the medical treatment of constipation. Yet it is a subject which we have always with us. Calomel and soda are known to you all, and are excellent remedies under certain conditions, and if properly administered. Should be given in small and frequently repeated doses and should not be commenced unless you are able to finish. Torpid liver, furred tongue, bilious condition, are the indications. My favorite pill is the aloin strychnia and belladonna pill, which meets more indications better than any other. Waugh's laxative, a similar pill with some additions is also good. It has the advantage of being divided into much smaller pills so that one can give it to children and graduate the dose much more exactly to the adult. Cascara sagrada and podophyllin have their niches in the treatment of constipation and fill them very worthily. Pill hepatic Merrill is a valuable one.

Laxatives, such as rhubarb and compound licorice powder, may be given at a time, probably in the afternoon, which experience teaches will bring about a stool before bedtime. Salines, Rochelle and Epsom salts and the natural purgative waters are best taken in the morning on an empty and unoccupied stomach. Where there are hemorrhoids present it is best to cause an evacuation before retiring, for they are apt to come out on defecating, and are easier to replace and retain when the patient assumes the recumbent posture. Croton oil should not be given in hemorrhoids, and aloes are also injurious. Severe purgatives should be avoided in piles. Liquid alboline, one drachm to one ounce after meals, will often soften stools and cause evacuation when they are hard and costive. It is not objectionable to take salve for an oily taste. Rectal injections of parafine for chronic constipation have been extensively practiced by Lipowski. He makes the injections in the evening with the patient in the knee-elbow position. The parafine is warmed till liquid and passed through a warm funnel. This effective, easy, simple method prevents absorption of fluid from the rectum.

The colon is happier and more contented when full, hence se-

vere purgatives sometimes defeat the object for which they were given by a secondary constipation. Prolonged purgation exhausts torpid bowels and perpetuates constipation. The dose of an aperient, hence, should not be in excess of that sufficient for a gentle evacuation in the particular individual attended. Objects to be remembered in the treatment of constipation are to evacuate the gases which tend to distend intestines and prevent contraction of muscular coating, tone up walls of bowel and prevent accumulation of feces and to increase the flow of intestinal mucus. Constipation from excessive peristalsis often causes an intractable variety which is best treated with atropine. Habitual constipation is one of the penalties of civilization, and each case is a study in itself. Opening the bowels does not cure constipation, but in many cases relieves for a few hours one of its symptoms.

Constipation from atony of the bowel often necessitates direct visual inspection. The patient may suffer from chronic constipation, but the catarrhal affection causes a scant serous stool every three or four hours. Defecation is painful, but there is no blood in the stool. Hard lumps of feces are found hidden in the sigmoid folds. Rest the rectum with laxatives and give it a chance to recuperate. Inject weak solutions of the silver salts after each stool. Left untreated, the condition becomes serious; if taken in time it readily responds to simple treatment.

Enormous quantities of strong cathartic pills are used by the public in self-medication, which often aggravate the condition for which they are taken. Laxatives should be preferred to purgatives, except in a few instances, mostly in the beginning of the treatment. Not till diet and hygienic methods have failed should we call in the aid of medicines.

Constipation in women is so common as to be constitutional, nay physiological. It gives them constant training for the ordeal of parturition. Indeed it is so common that the woman who is not so is quite out of fashion. It is of course easily explained by their mode of life, the readiness with which they defer defecation from inconvenience or from mock modesty. We have constipation in women due to retroflexion of the uterus and to contraction of the rectum by adhesion and contraction of sacro-uterine liga-

ment. The bowels next in frequency to the stomach sympathize in the various diseases peculiar to women. Gaseous collections and commotions in the bowels may simulate pregnancy. We have constipation in pregnancy due to the pressure of the enlarged uterus on the rectum. There is nothing very peculiar about the treatment of constipation in women except to avoid irritant cathartics during pregnancy. Such as aloes and cascara might produce uterine contractions. The chronically constipated woman is reduced to the necessity of many and varied laxatives, which only temporarily relieve in the majority of cases, and do not permanently cure.

Constipation in children is a very important subject. In them it is difficult to treat, especially in infants, and the time for the cure, and especially the prevention of the constipation, is very opportune. I can not refrain from mentioning the importance of hygiene and habit in constipation in the child. The baby should be put on the chair at regular hours. Nothing should be allowed to interfere with the movements of the bowels. In children the prolonged administration of small doses is preferable to the occasional use of large ones. Calomel in dry white stools with flatulence. Phosphate of soda is the best saline for prolonged use in infants. Malt possesses slightly laxative properties and can be advantageously administered to children. Also olive oil. The same drugs are useful as in adults. We should have the same objects as indicated above. Suppositories, oiled paper and soap help establish regular habits. Glycerine injections are good, but prolonged effects often bad, resulting in catarrh proctitis. Gluten suppositories are slower, but have not the ill effect of soap and glycerine. Drugs when used in suppositories are open to the fewest objection. Suppositories give the best results when seat of trouble is in the rectum and colon. They have little effect when trouble is in small intestine. The remedies used in suppositories are much the same as those per os. The best laxatives by the mouth are castor oil, fluid magnesia. If there is gastro-intestinal irritation, rhubarb and soda or grey powder. Olive oil may be sufficient in mild cases, or cream in infants.



## HYPODERMIC PURGATION.

Medicine and surgery both stand in need of a remedy which can be introduced subcutaneously with ease and comfort to the patient, and which is quick and reliable in its results. Theraputists and pharmacologists have for years been studying and experimenting with this end in view and not without encountering many difficulties.

Most of the remedies here discussed have serious drawbacks to their general use, but the question is nearing a solution, and continued study is recommended. We need something which will act on the intestinal tract, and on that only, without any untoward effects on any other part of the body. Especially is it desirable that this hypodermic purgative be given free from irritation at the point of puncture and subsequent abscesses and necrosis of tissue. Such a perfect hypodermic purgative must be readily soluble, preferable in water, in order that it will not be necessary to inject a large quantity. It will in many instances be desirable that the effect be produced in a short time, while in others a slow and prolonged action is preferred. The conditions in which hypodermic purgatives are desirable may be mentioned as marked gastro-intestinal irritability, children, insane, inebriates or hysterical persons who may refuse utterly to take medicine by the mouth, in coma and in certain cases of chronic constipation and after certain operations. Abdominal operations are an especial field for hypodermic purgation. The remedy can be introduced under the skin during anæsthesia and a mild purgative effect of for instance, phenolphthalein will appear the next day and its prolonged purgative effect continuing mildly for a number of days may dispense with the necessity of introducing any other purgative after the operation. That this happy condition is not yet attained, but that it is nevertheless attainable, may be surmised from reading further.

Altropine has been known to produce peristalsis when introduced hypodermically. It has not met with much favor on account of its action on the other secretions of the body.

Digitalis, pilocarpine, phystostigmine and muscarine produce a

cathartic effect when introduced hypodermically in sufficient doses, but the ill effects which accompany them prevent their use in this way for this purpose.

Cathartic acid, the active principle of senna, has been used by Castle and Dudley. They injected cathartic acid in kittens in gradually increasing doses. Two grains, hypodermically, were found to produce free catharsis in ten hours, which continued for several days. The stools were first hard, then soft, then clay colored.

Colocynthis is regarded by Heller as the most suitable for hypodermic purgation. This, aloes and cathartic acid, are all serviceable, but they are highly irritant, and the local reaction at the point of insertion is frequently severe. They are to be recommended in exceptional instances where the indications are imperative. Sloughing of the tissues may be expected to follow the injection in many instances.

Croton oil and castor oil have been experimented with. Catharsis was so slow in following that its connection with the remedy was doubtful. Painful swelling occurred at the point of insertion. Brunton found that elaterin acted as a purgative only in the presence of bile, when taken internally. One-twentieth to one-tenth grain hypodermically on kittens produced stools within an hour otherwise without effect.

Veratrine and also barium act on the involuntary muscles, but they have no selective action on the muscles of the intestine. Osterman used injections of atropine, in the hope of depressing inhibitory fibres of the splanchnic, and usually produces evacuation of the bowels in from 12 to 36 hours.

#### PODOPHYLLIN.

Brunton says that the resin of podophyllin acts on the bowel when injected subcutaneously as well as when introduced into the intestinal canal. However, considerable inconvenience is felt at the seat of the injection, occasionally resulting in necrosis of tissue. It may be taken as the best example of that group of vegetable cathartics solutions of which when introduced under the skin

produced increased peristalsis. Podophyllin injected under the skin produces purgation in from twenty minutes to one hour. Podophyllin was found by Powwissotsky to contain in the root and resin podophyllitoxin which was the active purgative principle; also another active principle called picropodophyllin. These two resins, one is soluble in ether and alcohol and the other in alcohol alone. Podophyllitoxin injected under the skin of a terrier produced seven liquid stools within three hours. Injected subcutaneously in a cat and the cat killed a few hours later, the gut from near the stomach to the large intestine showed marked congestion. An alcoholic solution of this membrane and its contents shows the presence of podophyllitoxin. Braun, in 1880, reported that he had used podophyllitoxin subcutaneously as a purgative in children and found that it represented podophyllin completely. To a child 13 years old he gave 6-100 to 8-100 of a grain. Mackenzie and Dixon injected  $\frac{1}{2}$  grain of podophyllin in a bull terrier. In 25 minutes the dog was restless, in 35 minutes had normal stool followed by diarrhoea. In two hours eight fluid motions were passed. They injected 2-5 grain of podophyllitoxin in a cat. At 12 it vomited, at 2, semi-fluid evacuation, at 2:30, at three, increased purgation, slime and bile, at 4 p.m. evacuations containing fluid blood and mucus. They found that podophyllitoxin and podophyiresin both exert their specific action when injected hypodermically, but in man caused so much irritation as to militate seriously against their use.

#### ESERINE.

The salicylate of eserine has been extensively experimented with by Craig of Boston and Vineberg of Mt. Sinai Hospital, New York. In Milligram dose hypodermically every three hours they found that it produced catharsis in 50 to 75 per cent of the cases. It will not act on the muscular coat of the intestine if the same is distended with gas so as to be paralyzed. Its action on the muscular coat of the intestine is much like that of ergot on the uterus. It does not cause a flow of fluids into the intestine. It has been much used by gynecological surgeons to overcome in-



testinal paralysis following abdominal operations; also to overcome intestinal atony following parturition or to dispel gas from a distended intestine. Sometimes it is given immediately after an operation to ward off paresis. It is given in 0.02 or 1-3 grain doses. Packard goes into the subject thoroughly in a paper on eserine in intestinal atony. In case of plumbers trap obstruction of the intestine to gases he gave 1-150 grain eserine salycilate hypodermically. In two hours after the injection the patient expelled a large amount of fluid and gas, and the abdomen became soft and flat. Calabar bean has been given by veterinarians for colic in horses. Dr. J. C. Reeve, of Dayton, has given eserine hypodermically in doses of 1-12 grain, 0.005. Such large doses are unnecessary if not dangerous. Eserine can hardly be considered a suitable or successful hypodermic purgative.

#### SALINES SUBCUTANEOUSLY.

Magnesium sulphate via the stomach is very slightly absorbed, and its cathartic effect depends largely on the osmotic power of abstracting water from the surrounding tissues until an isotonic solution is obtained. One decigram hypodermically in a man has caused purgation. The injections should be made in the arm and in doses of one decigram of one and a half grains in a 2 or 3 per cent solution. Results occurred in a majority of cases, though not uniform. It is needless to say that the effect of magnesium sulphate hypodermically is produced in an entirely different way than by the mouth, and exerts a separate action not found when administered by the mouth. The above dose under the skin usually produces an evacuation in from five to seven hours. It has been suggested that these injections, if given in the abdominal wall, might cause purgation by reflex irritation. It has also been objected that toxicity might occur if injected directly into the blood. Aubert, in 1857, stated that intravenous injections of sodium sulphate produced purgative effect. Claude Bernard recorded the same fact in the same year, and Headland in 1859. None of these writers gave any experimental proof of the same. MacCallum experimented with intravenous injection of salines

and found that those which caused purgation by the stomach or intestine have the same action intravenously and subcutaneously. He found that barium chloride possessed the purgative property in the greatest degree, that the purgative effect is produced by increased secretion as well as increased peristalsis, and that the purgative effect can be counteracted or abolished by calcium chloride. Eckhardt's experiments were not favorable to the use of salines subcutaneously. Bancroft repeated MacCallums experiments and came to the decision that sodium citrate and barium chloride subcutaneously and sodium sulphate intravenously act as purgatives. Barium chloride is frequently used by veterinarians subcutaneously as a purgative, one gram in this manner being sufficient to purge a horse weighing 1,000 pounds. It is, however, so poisonous as to be unsafe for general use. These investigations throw some light on this subject, and though intestinal peristalsis is undoubtedly increased by some of these salts yet the resulting purgation is not obtained without attending dangers which destroy their practical importance.

#### MORPHINE AND ITS DERIVATIVES.

Morphine, hypodermically, in large doses, in some cases produce purgation and also vomiting. Apomorphine, a powerful emetic, has some effect on the intestine. Codeine produces purging in animals and man more readily than morphine, while apocodeine brings on purging devoid of vomiting. The morphine group offers the greatest hope for the solution of the difficulty. Raviart was the first to use apocodeine subcutaneously for purgation and to report favorable results. Apocodeine, 0.03, produced, subcutaneously, in dogs and cats, purgation in from five to thirty minutes, while in man 0.03 or  $\frac{1}{2}$  gr., will produce a soft movement in an hour. It should be administered in a one or two per cent neutral solution, which should be filtered. So prepared there is no feeling of nausea, and the irritation from the injection passes off within an hour. Apocodeine lowers blood pressure, causes vaso dilatation and increases peristaltic movements, which is probably due to its sedative action on the sympathetic inhibitory ganglia.

Raviart and Barton, in 1890, used apocodeine in 34 cases of constipation subcutaneously and successfully. Guinard, in 1903, used it successfully in eight cases of constipation. Heintz, in the same year, tried it in thirty cases, in half of which he was successful. He found it uncertain, though it worked well in many cases. Most experimenters found that the purgative action came on quickly after the injection, sometimes within one or two hours. Heintz gave the purgative action as occurring in from 10 to 12 hours. The preparation in general use is the hydrochlorate and the dose is small, from 0.02 to 0.05 gm. The absence of influence on the stomach from apocodeine hypodermically is explained by the fact that the sympathetic gives off but few if any fibres to the stomach. It does not act centrally upon the brain, for increased peristalsis can still be seen when the vagi and cord are cut. It can not act on the extreme periphery, for if applied to the living intestine direct all movements discontinue. Injection of apocodeine in anæsthetized dogs and cats shows that certain ganglionic cells are paralyzed. After the injection stimulation of the chorda gives no increased submaxillary secretion, although the secretory neurons are active, because the exhibition of pilocarpine will give rise to a greatly augmented secretion. Apocodeine comes nearest to being the ideal subcutaneous purgative, though there are objections to it. Unfortunately, though readily soluble in water, it is an irritant to a certain degree, many patients having complained of the pain and an occasional abscess. This, however, may occur with almost any remedy used hypodermically. Its action is usually short of duration, the constipation generally returning in a day or two. Its action on the numerous organs are too numerous and complex, and involve too many symptoms.

#### PHENOLPHTHALEIN.

Fleig has separated a soluble salt of phenolphthalein, which he calls sodophthall, and which he relates is being used with success as a hypodermic purgative in the clinics of Montpelier. The chemical composition of the salt does not seem clear. Probably it is the disodium salt of phenolphthalein which has been de-



scribed by Mayer and Marx and which is made by the addition of sodium hydroxid to phenolphthalein. A very soluble salt, combining a very weak acid with a strong base, it is readily hydroidizable and acts like a solution of the alkali itself, that is, it is decidedly irritant. There does not seem a very bright future for this salt as a hypodermic purgative on account of its highly irritant character. Abel and Rowntree found that olive oil when heated would dissolve phenolphthalein and any of its derivatives and that this oil preparation injected under the skin of dogs produced purgation. Experiments proved that more prolonged purgation was induced when phenoltetra-chlorphthalein was employed than any other member of the group. Mode of preparation: Heat neutral olive oil slowly to 210 c. Add finely powdered phenoltetra-chlorphthalein, stirring all the time. The heating is continued for five minutes and the temperature not allowed to exceed 220 c. The oil solution while hot is filtered into sterilized flasks and put aside for use. This will dissolve the chlor body at the rate of about 0.2 gram to every 10 cc. of oil, while it will dissolve the phenolphthaleine itself in a slightly greater degree. For fear of saponification it is best not to prepare too much at once. Phenolphthalein shows a tendency to come down, but the chlor body does not precipitate. The drug is practically absorbed in its entirety from the local seat of the injection into the general circulation in from 16 to 24 hours. Part of the drug is reabsorbed from the large intestine, which prolongs the purgative action. Prolonged experimentation on forty dogs showed that injection of this body in neutral oil was not followed by any untoward results, either locally or systematically, and that no system other than the alimentary was affected. A series of experiments were conducted in John Hopkins Hospital, giving injections of this remedy to patients in the obstetrical wards. Some received it in lieu of the initial purgative, others when a purgative was indicated later in the lying in period. The results were not entirely satisfactory, but it is thought that the doses were too small. A decided laxative effect was obtained, however. The stools became softer, semi-fluid, porridge-like, and in one instance contained the drug as late as the fifth day. In none of the cases

did local inflammation or irritation occur, nor were griping pains or colic complained of. No drug could be found in the urine or milk. Experiments were made on thirty cases of chronic constipation in the clinic at John Hopkins Hospital. The striking feature of this study was the prolonged action of the drug. In many purgation persisted for four or five days. Experiments show the advantages of this remedy to be, the prolonged nature of its action, absence of crampy pains and colic, the constancy of results. Objections: insolubility of drug in water, slight solubility in oil, slow action—18 to 24 hours—mild character of action, laxative rather than purgative.

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## Proceedings of Societies

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ACADEMY OF MEDICINE, CINCINNATI, OHIO.

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Meetings for March.

### NOTES.

Dr. Martin H. Fischer is chairman of the Committee on Public Lectures. Many members have been added to the committee. Efforts have been made to ascertain the names of societies and organizations that desire to have a lecture or course of lectures delivered to them. The committee desires to have reasonable assurance of an audience and then the speakers will be assigned. The following have been added to the committee: Drs. Bernheim, Starr Ford, Boswell, Edith Smith, Edmund Baehr, J. A. Thompson, Elizabeth Campbell, Zenner, Dudley Palmer, Morgenstern, Frank Lamb, Louis Stricker, Westlake, Stoll and Goosman.

Dr. E. M. Baehr presented a patient with obscure neurological symptoms. Boy, nineteen years. History of vomiting, staggering, nystagmus for eight months; in early childhood history of keratitis, choked disc on right side. Patient over size and has large frame. Some inco-ordination of voluntary muscles; severe headache. Diagnosis between cerebellar neoplasm, disseminated sclerosis, or hereditary lues. Case will be presented again later.

Dr. Moses Salzer reported a case of artificial resuscitation of a new-born infant where the NO<sub>2</sub> oxygen apparatus was used. Oxygen alone was used to inflate the child's lungs, with perfect result.

Dr. E. O. Smith has a case report of nephrectomy for tubercular kidney. Early diagnosis by ureteral catheterization and demonstration of the tubercle bacillus in stained specimen. Perfect function of sound kidney followed operation. Discussed by Dr. A. W. Nelson.

At the regular meeting of the Cincinnati Academy of Medicine, March 3, 1913, the following resolution was passed unani-



mously, and, by order of the Academy, the secretary was instructed to send a copy to each member of the Hamilton County Legislature, hoping for their coöperation in the matter referred to:

WHEREAS, Proposed legislation to establish a State Board of Registration for Optometrists would give incompetent pretenders a fine opportunity to treat the most delicate of human organs, the eye;

WHEREAS, The duty of the medical profession in protecting the health of the public includes the exclusion of uneducated, dishonest and incompetent men from any department of practice;

*Resolved*, Therefore, the Academy of Medicine of Cincinnati, requests all our Representatives to vote again H. B. No. 116, Mr. Carroll, entitled, "A Bill to Regulate the Practice of Optometry."

Dr. Robert Sattler presented a patient, about twenty years old, with a history of double ectropion in both eyes from childhood (upper and lower lids being affected). Patient was of the degenerate type. Had great difficulty from injury to the cornea due to inability to close the lids at any time, and was confined to the house by it. The lids were both operated, and, owing to the enormous deposit of fibrous tissue, it was necessary to skin graft to cover the deficiency. The lids were still united by suture when the case was presented.

Dr. Derrick T. Vail read his paper on "A Study of Congenital Cataract, with Special Reference to its Clinical Significance." Dr. Vail took up the embryology of the development of the lens, the possibility of the absence of the lens and the relation of changes in the blood supply to the congenital anomalies and causes of the different clinical types of congenital cataract. The opening in the posterior sheath of the lens capsule and its relation to conical cataract, and the development of opacities in the lens due to the conversion of the hyaline substance into connective tissue were discussed. Special consideration was given nuclear cataract and the methods of dealing with it by operation.

Dr. Robert Sattler, in discussion, said the subject could be divided clinically into two classes: (1) Those where the other

structures of the eye were normal; (2) those where the entire globe was affected by shrinkage or other deformities. In the first group operation was advisable; in the second group operation was not advisable. Iridectomy was the operation of choice in many cases.

Dr. Jesse Wyler divided the condition into two classes, viz., congenital malformations and those due to intrauterine inflammations, and spoke of the experimental production of congenital cataract by Pagenstecher and von Silly.

Dr. Louis Stricker took exceptions to the view that we ever have congenital absence of the lens, saying that with proper search some effort at lens formation will be found in most of these cases. Etiologically we must look for an altered blood supply or some nutritional disturbance.

Dr. M. L. Heidingsfeld read a short paper on "Some Affections of the Nails," illustrating personal cases with lantern slides, taking up the pathology and contradicting some of the commonly accepted theories as to etiology. He demonstrated that pathologically we may expect to find the etiology in the tissues of the matrix, thereby altering the nutrition. Considerable space was given to entire absence of any nail substance (congenital) on fingers or toes.

Dr. William Gillespie presented a patient (baby) and reported a case of fatal puerperal eclampsia in which the mother was delivered of a living child, after the death of the mother, by a Cæsaréan section performed by Dr. Wright, the interne on duty at the City Hospital.

Dr. Ramon Guiteras, of New York, addressed the Academy on "Surgery of the Kidney." Dr. Guiteras presented a large number of lantern slides from drawing and photographs made from his almost wonderful private collection. The address was full of the rather unusual types of cases and represented the cases that give the most concern. Dr. Guiteras dwelt on the anomalies, and spoke of having seen three cases of single kidney in ten months' service.

Dr. S. P. Kramer then reported cases of instant death from the intra-spinal injection of serum in cerebro-spinal meningitis.

Dr. Kramer made experiments on animals, showing the effect of serum applied directly to the floor of the fourth ventricle. Injection of trikresol in  $\frac{1}{2}$  per cent solution causes the same result, and Dr. Kramer takes the ground that the preservative in the serums causes the trouble. Dr. Kramer advised against the use of the serum in young children.

A motion by Dr. Oliver that a committee of three be appointed to investigate this matter and report to the Academy prevailed. A suggestion was made that the committee ask the aid of experimental laboratories such as the Rockefeller Institute.

Dr. Berghausen held the Academy ought not to go on record as condemning the serum in young children. As different strains of bacteria give varied results with the serums, he believed that each large city should furnish the serum laboratories with bacteria, and it would probably be better to have a polyvalent serum made and use that.

Dr. Wolfstein took exception to the claim of Dr. Kramer that the different nuclei in the floor of the fourth verticle would be so differently affected from the serum alone. Dr. Faller also discussed the report, Dr. Kramer closing.

The Chair appointed on the committee to investigate the effects of spinal injection of serum, Dr. S. P. Kramer, Dr. Berghausen and Dr. Wagner.

Dr. W. D. Haines presented a specimen of colloid goitre removed ten days ago at the Jewish Hospital. It was a large unilateral goitre causing tracheal tugging and symptoms of hyperthyroidism except exophthalmus. It was difficult of removal on account of intimate attachment to the trachea and low position of lower pole, making it necessary to do a polar ligation of inferior thyroid artery. Patient recovered. Discussed by Dr. E. W. Mitchell.

Dr. Charles T. Souther reported the following two cases:

1. Gall-bladder and common duct stone. Stones were of distinctly different type. Operation was done by the transverse incision of Farr, including division of the right rectus muscle. Patient doing well on eighth day.

2. Amputation of extensive carcinoma of the breast. Using



large flap from opposite breast (extending to the loose, movable area of the sound breast) to cover the area. This shortens time in hospital and makes a very extensive operation possible.

Cases were discussed by Dr. W. D. Haines, who said he had used the gridiron incision devised by Dr. Souther in a dozen cases of gall-bladder work, and very much preferred it to division of muscles.

Dr. J. A. Johnson said he had tried the incision devised by Dr. Souther, and found that the size of the incision was rather limited, and he was not impressed with the method in the case he used it.

Dr. Souther said he was able to get a six-inch incision by the method previously published.

Dr. J. Ambrose Johnston presented a specimen of tumor removed from inguinal region (glands), which developed following injury to the thigh; probable carcinoma. Microscopic report will be made later.

Dr. J. E. Pirrung reported a case of perforating duodenal ulcer operated three hours after perforation. Hedonal anaesthesia; convalescence well established. No post-operative vomiting and no peritonitis.

Dr. Edwin M. Baehr read "Contributions to the Study of Epilepsy in the Last Two Years." Dr. Baehr's paper was a careful resumé of the best that has been written on this subject the last two years. Statistics seem to show conclusively that alcoholism in all its forms has a definite relation to the frequency of epilepsy, and the hereditary element is as potent as any other etiological factor.

Discussed by Dr. Charles A. L. Reed, who discussed the relation of gynecological conditions to epilepsy, and said while double oöphorectomy was at times followed by relief of the type that develops at puberty, many cases were discouraging in results.

Dr. Frank L. Rattermann read a paper on "Diagnosis of Diseases of the Alimentary Tract." Dr. Rattermann confined his paper largely to the proper conduction of a physical examination of patients suffering from alimentary disease, taking up procedures useful in detecting disease. Detail of technique of phy-

sical examination was laid on gastric conditions, and reference was made to gastric analysis and possible source of error in test meals etc. A strong plea was made for a careful analysis of the history, and the result of a careful physical examination.

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## Selected Articles

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### ADVICE TO PATIENTS ON LEAVING THE HOSPITAL AFTER SURGICAL OPERATIONS.

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LEONARD FREEMAN, M.D., Denver.

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Comparatively little seems to have been written on this subject, in spite of its importance. The character of the advice will of course depend largely on the nature of the operation and of the condition for which it was done; but there are certain general considerations which will apply to the majority of cases unless some special contra-indication exists.

It was formerly customary to keep surgical patients in the hospital, and even in bed, for what is now known to be an unnecessarily long time, thus adding to their expenditures, decreasing their incomes, and consuming time which could otherwise be more profitably employed. The sum total of the loss to the community from this source was enormous. Gradually we have learned to reduce this loss of time, to the advantage of the patients and to the general advancement of surgery.

Surgical patients on leaving the hospital generally pass from under the observation of the operator, especially those living at a distance. Unless the surgeon takes the trouble to advise them, their future mental and physical welfare will depend on their own ideas and on the advice of those around them, including perhaps their family physician. Most patients have a very hazy conception regarding their conduct, their actions often being largely governed by groundless fears and traditions and by the advice of ignorant or oversolicitous friends. Even the family physician, if consulted, is not always a reliable guide, because of unfamiliarity with surgical questions or of lack of knowledge of the individual case. These things are unfortunate, and militate a-



against the prompt and smooth mental and physical recovery which should be the aim of every well-conducted surgical procedure.

To the surgeon all seems simple enough. With his superior knowledge it is difficult for him to realize the fears and uncertainties of the patient suddenly thrown on his own ignorant resources; and hence his instructions, if he gives any, are too hasty, meager and but imperfectly understood. I am convinced that the whole subject deserves more attention than has hitherto been accorded it.

The following outline represents my own ideas of the situation, which may not accord with those of others, but which will at least serve as a basis for consideration and discussion:

The surgeon should take time to talk over with each patient, before he leaves the hospital, his present condition, his prospects and his future course of action, explaining also, within the bounds of reason and expediency, the exact nature of the operation performed. As abdominal operations are the most frequent, I shall consider the advice to be given in connection with these; most of this advice applies to other surgical procedures also.

The patient should be told, when this can conscientiously be done, that the operation was successful and that everything necessary was accomplished. It should also be explained, when true, that the abdomen was explored wherever there was a likelihood of anything being wrong and that everything was in perfect condition. This is an important point for the patient's future peace of mind, and hence, according to the most modern principles of surgery, such exploration should be done when practicable. It is well to make this explanation as emphatic as circumstances will permit, no matter what exception it may be wise to make to relatives and friends. For instance, one is usually justified in saying:

"Everything is all right; not only in the region operated on, but in the rest of the abdomen you are in just as good condition as any one else. I know this to be true, because I have examined everything carefully. Even if you feel more or less pain and soreness in the future, you must not think that they mean anything more than the natural consequences of a surgical operation.

"You must bear in mind that an operation is a severe injury,

just as much as if you had fallen from a horse or had been run over by an automobile. The skin, with its many small nerves, has been cut, and the muscles separated and more or less strained and bruised, which is certain to produce soreness and stiffness that may persist for a long time, but which mean little and should be disregarded as far as possible. A similar soreness and stiffness would result from severe and unaccustomed physical exertion, such as climbing a mountain, but it would cause no anxiety and you would be sure of its speedy disappearance. The division of nerves in the skin may give rise to various uncomfortable sensations, such as numbness, oversensitiveness and even actual pain in the scar; but these manifestations mean nothing, should be given but little attention, and will surely vanish in the course of time."

"All of these disagreeable symptoms are apt to be more pronounced at night, while you lie quietly in bed, with nothing else to occupy your attention. This is largely owing to the accumulation of gas within the bowels, which presses on the sore places from the inside much as if you pressed on them with your hand from the outside. If you do not bear this in mind you are apt to imagine that some dire calamity is fomenting within you."

In addition to some such talk as the above, it may be stated that the soreness following an operation is likely to occur in periods, brought on perhaps by overexertion, indigestion, barometric changes, etc., but that these spells signify little and should cause no mental uneasiness; that if they are regarded too seriously and with the idea that something is wrong inside, they may increase to such a degree that the patient becomes a nervous, hysterical semi-invalid—a nuisance to herself, to her physician, and to all those who are so unfortunate as to be associated with her. I say *her* because such cases usually occur in women.

The effects of this sort of introspection may advantageously be illustrated by referring to the fact that many medical students develop symptoms of the various diseases which they read of and hear about in their lectures. The patient will also get a better understanding of the situation if she will sit quietly down by herself, hold up her little finger in front of her and look fixedly at

it for fifteen minutes, concentrating her whole attention on it. Before the time has expired it is likely that the finger will be the seat of some very peculiar sensations, and there will be a strong tendency to give it a good rubbing. If this is true of a normal finger, how much more must it apply to the seat of an operation, with all the mysterious fears and uncertainties round it!

In order further to avoid the evils of introspection, the patient should be cautioned against describing the operation and the hospital experiences to curious friends. In fact the whole matter should be regarded as a more or less disagreeable episode, to be made little of and forgotten as soon as possible. In this connection the Germans have an excellent saying, *Schwamm darüber*—"sponge it out."

Emphasis should be laid on the fact that according to the mental attitude it is possible either quickly to overcome the effects of most operations or to nurse them along indefinitely, and develop a condition of semi-invalidism, by continuously "looking for trouble" and "making mountains out of mole-hills." Assure the patient emphatically that in your opinion she does not belong to this latter class of weak and nervous individuals, who are much to be pitied; but that you feel certain from your observation of her that she will conduct herself with sense and discretion and not allow herself to become hysterical and neurotic. It is often well to add that any nervous symptoms which may have bothered her in the past evidently had a good foundation, but that from now on there can be nothing to prevent her from rapidly regaining her normal equilibrium, and that you can easily see that she is one of those who are always cheerful, energetic and happy if only they have a fair chance.

Patients must be warned against trying to interpret their own symptoms; for even doctors, with their superior knowledge, can not trust themselves to tell what is going on within their own bodies. Above all, allowance must be made for the advice and statements of friends. There is nearly always some woman who, without appreciating that she is doing harm, will fill the patient's mind with forebodings of disaster, such as the development of hernia or the return of gallstones or of a malignant growth. Es-



pecially is this true of the woman who opposed the operation and who consequently desires to be able to say "I told you so." Explain that these objectionable pessimists can know but little about the subject, and at best must base their predictions on very few observations; while your own opinion, as the surgeon in the case, is supported by the knowledge gained in operating, as well as by the dictum of the entire medical profession, grounded on years of experience and investigation.

#### ABDOMINAL SUPPORTERS.

Patients are always anxious regarding the character of abdominal supporters and the length of time during which they should be worn. The laity, as well as many physicians, regard them as of so much importance that the surgeon is compelled to give them an undue amount of attention. It should, I think, be explained that these "belts" are really of little service, except as they may confer a sense of security and comfort, or when ptosis exists. If there is a tendency toward rupture it will occur in spite of the belt, a fact that is quite generally recognized among surgeons. There is, however, such a strong prejudice in favor of belts that it would be unwise to advise against their use, for if any trouble should occur the surgeon would undoubtedly be blamed. Moreover most women are in the habit of wearing corsets and would feel uncomfortable without a support of some kind.

Fortunately a proper corset is just as good as a belt, or better. It should be of the long, "straight-front" variety and should be so laced as to push the whole abdomen upward. This may be done by employing two strings, the lower one being laced snugly and tied perhaps halfway up, while the upper one is fastened more loosely. It is neither necessary nor desirable to wear belts or corsets very tight. They should be used for purposes of support only and not for constriction, and should never cause discomfort. No pads or stays should ever rest directly on the incision; not only is such pressure useless, but also in recent wounds it may give rise to inflammation and pain, while in older cases it

favors atrophy and weakening of the scar. I have often seen much distress caused by the pressure of a reinforcing band or a corset-stay. It should also be made clear that it is unnecessary to wear a supporter of any kind while lying down at night.

#### DRESSINGS.

When patients leave the hospital they are generally still wearing some sort of dressing held in place by a many-tailed bandage. They should be told that this is merely for the purpose of protecting the delicate scar, no virtue being attached to the cotton and gauze, and that the whole thing may soon be removed. Until then it is unnecessary to wear an abdominal supporter, its place being filled by the bandage. When the gauze and cotton are discarded they may be replaced by a folded handkerchief if the citatrix is still tender.

It should also be stated that all danger of infection ceases as soon as the wound is healed. If this is not done, those who have had this danger constantly paraded before them while in the hospital may remain uneasy for many weeks, as I have often seen.

#### CONSTIPATION.

Immediately following an operation it is usually necessary to employ cathartics freely, which naturally leads to constipation. If nothing is done to overcome this it may cause permanent impairment of the natural activity of the bowels, requiring a more or less constant use of drugs; hence it is well carefully to advise patients in this regard. There are doubtless many good ways of doing this, but I have found the following method efficient:

1. On awakening in the morning, before getting out of bed, knead the bowels deeply and thoroughly, following the colon from the cecum to the sigmoid.

2. On arising drink a glass of cold water and take such calisthenics as are permissible under the circumstances, increasing these exercises as convalescence progresses.

3. Eat for breakfast such things as experience has taught are most likely to assist peristalsis—such as fruit and oatmeal.

4. Go to the water-closet as nearly as possible exactly at a stated time, the reason for this being that the bowels are “creatures of habit” and “slaves of suggestion.” To those of regular habits the “suggestion” accompanying a certain time and place is sufficient to procure a movement; but if the time is allowed to pass on a few successive occasions, constipation results. Nothing should be allowed to interfere with this regularity, and all mental and physical exertion should, as far as practicable, be postponed until after the visit to the water-closet.

5. Stay in the water-closet for fifteen minutes, by the watch, without straining—just waiting.

6. If the attempt fails, as it often does at first, it will then be necessary to give the bowels some assistance, not with cathartics, because the more cathartics one takes the more one requires, but by the injection of a few ounces of cold water from a fountain syringe, or possibly by the use of a glycerin suppository.

Most cases of ordinary constipation will yield to this regime in a week or two, although some are stubborn enough to require more elaborate methods. Occasionally harmonic, agar, vibratory massage, or even dilatation of the sphincter may be necessary.

#### DIET.

The great majority of patients on leaving the hospital are in condition to resume their ordinary diet, but they are often afraid to do so unless informed of the fact, because they are convinced that some specific diet should follow every operation. The fact is, however, that convalescence is often retarded by a departure from customary habits of eating and drinking, which have become in a measure physiologic necessities.

There are, of course, certain cases requiring special systems of diet, which are often better prescribed by the physician than by the surgeon. For instance, in stomach cases the patient should be given a carefully prepared diet list and cautioned against over-



eating, while in genito-urinary cases the patients should be advised to drink water freely and avoid alcohol, etc.

#### SOCIAL DUTIES, VISITORS, ETC.

Every operation means more or less nervous and physical strain, not only from the operation itself, but also from the apprehension and sleeplessness which precede and accompany it. The result is a decided loss of energy and resisting power. Even prolonged rest in bed, without other cause, is productive of considerable weakness. Under these circumstances nothing is more exhausting to a convalescent than a too rapid resumption of social duties. Hence warning should be given against dinners, parties, receptions and theatres, and especially against receiving too many visitors and indulging in prolonged conversations.

As soon as one who has been operated on returns from the hospital, every acquaintance is curious to see the result and hear all about the operation, and the defenseless patient must again and again rehearse the whole experience in all its harrowing details. This is not only exhausting, both nervously and physically (no one knows how exhausting who has not been through it), but it also prevents the mind from getting into other and less morbid channels. In this connection it may be mentioned that one of the worst things a patient can do on leaving the hospital is to go to the home of a friend. This is nearly always a strain, because it entails certain social exactions which can not be avoided and which interfere with that relaxation of body, ease of mind and freedom from obligations which are necessary to recuperation.

For all these reasons it is often desirable, when possible, for patients to go away and complete their convalescence in some interesting locality among strangers, surrounded by new scenes and free from the well-meant persecutions of their friends.

#### REST AND SLEEP.

Too much stress can not be placed on the procuring of sufficient sleep; but unfortunately this is often difficult to get, owing

to nervous irritability and social activity. Patients should be instructed to retire early and also to lie down for a short time at least once during the day. They must also be warned against the excessive use of hypnotics, which should never be taken except under the direction of their family physician, because the drug habit is easily acquired under such circumstances and its effects are disastrous.

#### GOING UP AND DOWN STAIRS, RIDING, ETC.

Most people, for some reason, have an idea that it is harmful for those who have recently been operated on to go up and down stairs. In reality there is no danger in this except the danger of falling, which may, however, be considerable while the patient is still in a weakened condition.

Riding in almost any sort of a conveyance is nearly always permissible, providing the driver is reasonably cautious and the excursion is not too long. Street cars, railroad trains and sea-going vessels are seldom objectionable, although the question of seasickness must be considered. Horseback riding and bicycling must be approached with caution and should not be indulged in for at least a number of weeks, especially in cases of movable kidney or other forms of ptosis.

#### EXERCISE.

This is of much importance and should be encouraged, although it should of course be appropriate and judicious in amount. The patient must be made to understand that no one ever gets strong by resting too much, and that exercise and fresh air within reason are quite necessary to a rapid and satisfactory convalescence. It is especially desirable that the abdominal muscles, weakened and injured by the operation, should be strengthened by carefully graduated calisthenics, beginning with the lightest work, which is cautiously increased until the normal tone is regained. It is better for the patient to do this slowly and carefully than to permit the muscles to remain weak and atrophied until some sudden and unavoidable strain results in serious damage. Mas-

sage is often serviceable and should be recommended more often than it is when the means of the patient permit.

#### RETURNING TO WORK.

Most patients desire to know on leaving the hospital how soon they can safely return to their regular occupation. This is difficult to answer because it depends so much on the nature of the work. The tendency has always been to keep people idle too long, which is detrimental to them, physically, mentally and financially, and a loss to the community also. The idea should be to get them back to their avocations as soon as this can be done. It is often better, for instance, to permit a woman to resume within proper limits many of her household duties, rather than to insist that she sit around for weeks or months in enervating and useless inactivity.

In this connection it can be said that most abdominal wounds are as strong at the end of a month or six weeks as they will ever be; and other things being equal, the majority of patients can return even to quite heavy work at that time. If there is a tendency to the formation of a rupture it will come anyhow in spite of any reasonable care, so there is but little object in waiting longer. In appendix operations done with the gridiron incision the time of probation may still further be curtailed, even to so short a period as three weeks in some instances. In cases of movable kidney the wait must be longer—say six to eight weeks—while hernia occupies an intermediate position.

Women should not be in too much of a hurry to resume the care of small children, although this is exactly what the average mother of such children is anxious to do. It is wise to try to convince her that it is good for the children and develops their character and independence to be with others for a time, and that she, the mother, can do them greater justice in the end by properly recuperating before she returns to them.

#### VARIOUS POSTOPERATIVE CONDITIONS.

ADHESIONS.—The surgeon should not neglect to explain about adhesions, because if he does not mention the subject some one



else will, and entirely wrong and disturbing notions may be the result. It should be explained that adhesions follow almost every abdominal operation, and that this is natural and proper. Nature has provided the omentum for this very purpose—to fasten together and protect internal wounds, just as we use adhesive plaster and dressings for similar purposes externally. It should be clearly understood that these adhesions are harmless, although they may pull uncomfortably for a time until they become stretched and adjusted to their surroundings. Also, it should be explained that, like the external dressings, they are usually temporary and that they tend to dissolve and disappear in the course of time.

*The Eyes.*—It is often desirable to direct attention to the eyes. If there is anything wrong with the accommodation of these organs, although the compensation may previously have been perfect, difficulty is apt to arise from muscular strain, following the weakening effects of a serious operation, which results in headache, dizziness and perhaps nausea. If these symptoms appear and persist, an oculist should be consulted.

*Bathing.*—Many patients are worried by an uncertainty as to when they may begin to take baths. It should be explained that “when a wound is well it is well,” and that, other things being equal, they may begin bathing as soon as the wound is thoroughly healed and “dry”—usually in from two to three weeks after the operation.

*Menstruation.*—Unless something is said on this subject much uneasiness will result. It must be explained that irregularities of the menses often follow surgical operations; they may come too soon or too late, be too profuse or too scant, or even not appear at all for several months. Whatever occurs is of little importance and the function will adjust itself in the course of time without causing harm of any kind.

### CONCLUSION.

The preceding imperfect consideration of an important subject is of course merely suggestive; there are many points which have

not even been touched on. Operations other than abdominal require individual instructions according to the nature of the case and the characteristics of the patient. For instance, where the skull and brain are concerned, it should be understood that mental exertion and excitement must be avoided for an appropriate length of time; in genito-urinary cases much water and other liquids should be consumed with the exclusion of anything containing alcohol or other irritating substances; in amputations, massage of the stump should be recommended and attention should be directed to the occurrence and persistence of reflex pains and peculiar sensations referred to the absent foot or hand, which are often disturbing, especially if not correctly understood. Patients who have had rectal trouble, those, for instance, who have been operated on for piles, must be told to avoid for at least two weeks the passage of hardened feces, making use, for this purpose, of proper cathartics and of warm saline enemas before movements of the bowels, when this seems to be necessary.—*The Journal of the American Medical Association.*

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## THE VALUE OF STARCH-TREATED FOODS IN THE DIETO-THERAPY OF DIABETES-MELLITUS.

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“No subject in medicine has, for the past one hundred and fifty years, been given more thought, from a scientific and experimental standpoint, than diabetes, and yet no subject, as to the true pathology and etiology of which we possess proportionately less accurate information.” This is the introductory paragraph of a valuable contribution on the above subject appearing in the March issue of the Medical Summary, of Philadelphia, by George Mosse Norton, M.D., who, after considering the pathology, etiology, symptomatology, and prognosis of diabetes-mellitus, says:

“Dieto-therapy offers the greatest and most rational promise of relief or cure, and is by far the sheet anchor in the treatment of

diabetes, and is more efficient than any drug or combination of drugs, and no permanent results have ever been obtained without strict diabetic supervision. Unfortunately, pharmacology has not provided any drug which acts directly upon the excitability of the sugar-forming process of the liver. All authorities agree that the diabetic wastes away and starves to death—from consuming his own tissues—through the impaired condition of the ‘glycogenic function’ of the liver.”

He affirms that heretofore the difficulty in the successful management of diabetes has been that the patient could not assimilate foods containing carbohydrates in the form of starch as it appears in the ordinary food products, and by eliminating the starch from the products their value as a sustaining food is completely destroyed.

He also emphasizes the fact: “All the working cells of the body use sugar as their foodstuff and immediate source of energy, which, if not supplied from the food (starch) ingested, must be taken out of the tissues, and in the patient suffering from diabetes the waste from the body is more than the intake of food into the system.”

The author’s experience coincides with Von Noorden and other eminent authorities that the best food for the diabetic is the food containing the greatest amount of carbohydrates which they can tolerate, because in the carbohydrates is contained the greatest proportion of calories, or heat units, which go to make up the energy of life.

Dr. Norton states that while he realized that Van Noorden’s deductions were correct, yet while entertaining little hope that a starchy food which a diabetic could ingest with impunity would ever be perfected, it was by a mere “coincidence” that his attention was brought to such a food. A prominent New York physician was consulted by one of Dr. Norton’s diabetic patients, and was placed on a new starch-treated product known as the Jireh Diabetic Foods.

The doctor, in commenting on the case, says: “When his patient returned after three months—all the while eating the starch-treated foods—he was amazed, but agreeably surprised at the re-



markable improvement, which continued after the lapse of a year. Health, strength, and weight gradually increased on these foods, together with eggs and other suitable diet, and the sugar slowly disappeared from the urine, only traces now being present."

The author refers to the increased death rate from diabetes, and avers that "before the present process of refining, bolting, and bleaching flour became common, there were few cases of diabetes in either men or women, but of late years from the constant ingestion of insoluble starchy foods, this disease has increased with leaps and bounds. He points out the amazing fact that the rapid increase in the death rate from diabetes has kept pace with the "patent roller" process of manufacturing flour.

The doctor in describing the process of treating the starch says, "Each starch granule in cereal food products is inclosed in a tough envelope that the process of grinding does not break. To render these easy of digestion, without the formation of sugar in the diabetic, is the secret of these starch-treated foods."

"The starch granules are thoroughly broken up by diathermous fermentation, produced by the addition of certain digestive enzymes to the flour, which, after thorough trituration, is subjected to a certain degree of heat for a specified period of time, by especially constructed machinery, designed for this particular purpose."

"The above treatment applied to a whole-wheat-stone-ground flour, followed by the scientific application of heat, causes a commingling of the carbo-hydrate and nitrogen molecules of the starch granules of the wheat berry, resulting in a very slight fermentation leading to division and expansion, after ingestion, and to final disintegration in the small intestine."

The author refers to the mineral constituents of the wheat berry as follows: "The wheat berry contains about 75 per cent of starch, and in combination are certain other constituents—gluten, nitrogen, carbon, chlorine, calcium, phosphorus, sulphur, sodium, potassium, ferrum, magnesium, and fluoric acid. Nature placed the above named mineral or cereal salts into the wheat berry that the Biblical injunction might be fulfilled that bread would really be the 'staff of life', but to change the starch in flour from

which the above cereal salts have been eliminated—by present day method of milling—is impossible, and it is likewise impossible to render it soluble so that the dextrin and glucose can be appropriated and oxidized by the various ferments of the digestive tract.” Referring to the physiologic and therapeutic value of Jireh Products the author summarizes as follows:

The foods are manufactured from a whole-wheat-stone-ground-starch-treated flour in which is retained all of the starch and cereal salts so necessary to sustain and build up the depleted system of diabetic sufferer. The ingestion of these foods will assist in equalizing sugar production to sugar requirements, by enabling the defective function of the diabetic's liver to fix the starch and store the sugar as “glycogen” to be used, as force and energy, as in health.

In closing the author says: “There are ten reasons why foods made from starch-treated flour are superior foods in the dietetic treatment of diabetes.

1. The wheat from which these food products are manufactured is selected from the choicest grade of wheat and ground on the “old-fashioned” Buhr millstone.

2. These foods are manufactured from an entire whole-wheat-stone-ground flour, because the best part of the nutrient is under the shell where the phosphate of potash and other cereal salts—absolutely demanded by the body for its proper sustenance—are found.

3. The flour from which these foods are manufactured is subjected to a diathermous fermentation, which produces certain changes in the carbo-hydrate or starch granules, but retains all the food value of the starch and cereal salts.

4. The change in the starch is slight but sufficient to facilitate its rapid change into a form of sugar to sustain the body in a healthy condition.

5. The foods are palatably delicious and satisfying as compared with the insipid and obnoxious devitalized gluten foods.

6. They contain all the mineral constituents of the whole wheat berry so necessary to maintain the vitality of the human body.

7. The starch is not changed into indigestible dextrine or glucose.

8. No chemicals whatsoever are employed in the treatment of the starch.

9. These starch-treated food products are high in food value.

10. They are physiologically correct.



## Extracts from Home and Foreign Journals.

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### SURGICAL

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#### THE USE OF LOCAL ANAESTHESIA FOR THE REDUCTION OF FRACTURES.

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According to Prof. H. Braun (*Deut. med. Wochensch.*, No. 1, 1913) Lerda and Zuenn have been very successful in reducing and treating fractures without pain, by means of local anæsthesia with a one-half of one per cent cocain solution. His own results in 50 cases of subcutaneous fractures and dislocations have been equally satisfactory. His method consists in injecting a 1 per cent novocain-suprarenin solution, the pain subsiding in a few minutes and remaining absent for a considerable time. In three cases of fracture of the radius where 10 ccm. of the anæsthetic solution were used reduction was unattended with the least pain, while in seven cases of fractures of the forearm the method of plexus anæsthesia produced complete muscular relaxation and loss of sensation. Backward dislocation of the forearm, as well as supracondylar fracture of the arm with dislocation, could be reduced without the least suffering. In fifteen cases of luxation of the shoulderjoint plexus anæsthesia was employed ten times and inter-articular injection in five more recent cases. In making the latter 10 ccm. of the novocain-suprarenin solution were injected just beneath the acromion into the joint and another 10 ccm. down to the head of the humerus, which was located below the clavicle. The author reports favorable results in fractures of the ankle, leg and knee, and in dislocations at the hip-joint. No deleterious effects were ever observed.—*International Journal of Surgery*.

URETERAL OBSTRUCTION.

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B. Tenney states that two symptoms appear in almost every condition which obstruct a ureter. One is pain between the point of obstruction and the tenth rib, on the obstructed side. The pain varies from a dull ache to agony and may produce anything from nervous irritability to vomiting and unconsciousness. This pain is sometimes increased by motion, as in stone cases, sometimes brought on by a change from the horizontal to the upright position, as in cases with ureteral kink, and sometimes appears without regard to either, as in pus or bleeding kidneys when the patient's pain comes and goes quickly with the passage of some fibrin mass through the ureter. Pain is present when there is back pressure in the kidney and may be associated with vomiting and fever, or it may be associated with vomiting and a normal temperature, or there may be subnormal temperature. The pain is said to radiate along the affected side down to the penis or vagina or leg, but the author's patients have had most of their pain in the back in the region of the twelfth rib. Radiation—unless pelvic pain be considered such—has been uncommon in the author's cases. Cases with pain on the unaffected side have been reported on good authority. The pain may be recent or of long standing. Pain is what the patient describes without examination. Tenderness may correspond in location or differ. When a patient is in pain from ureteral obstruction he is also tender over the affected kidney. When he is not in pain the tenderness may and often does disappear. In women the ureteral insertion, which can almost always be felt through the vagina, will be found sensitive if there is infection behind a point of obstruction, and often while the infection remains a bacteriuria. The other constant symptom is an alteration from the normal habits of urination. One may find increased frequency, urgency, incontinence, or the necessity of repeated attempts before the desire passes away. The presence of any one of these symptoms is a plain warning that something is wrong in the urinary tract—not necessarily in the kidney—and calls for further study.—*Med. Rec.*

**MEDICAL****RAW MEAT JUICE IN INTESTINAL TUBERCULOSIS.**

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The use of raw meat juice in intestinal tuberculosis is not a mere dietary fad. It is based on recent and sound experimental facts and observations of the best physicians. The amount to be taken daily to be efficacious is the juice of 2 lbs. fresh meat. The juice must be expressed as soon as possible after the animal is slaughtered. The meat should be preserved in an ice-box and under aseptic conditions. The juice is highly unstable and develops toxic properties within an hour or so, and hence it should be expressed every time fresh and collected in a vessel surrounded by ice. The process is troublesome, but it is worth doing it.

The good results are not due to hyper-alimentive, since by far the greater part of the nutritive principles remains in the meat. The specific elements are contained exclusively in the meat juice. The solid components of meat have not therapeutical action on tubercle. Note, that cooking destroys the specific principles.

*The Process of Preparing the Juice.*—A quarter pound of fresh goat's meat is quickly chopped fine and pounded in a stone mortar. After it has been reduced to a pulp, an ounce of cold water is poured on it and again it is pounded a little. A few leaves of mint or coriander may be added to flavor it. The whole mass is then squeezed in a clean piece of muslin and the clear red colored juice is administered immediately to the patient. He should be fed every third hour with an equal quantity of freshly prepared juice. Fowl meat can be used instead of mutton. I think the use of goat's meat is the best as that animal is immune to tubercle. Raw meat juice in intestinal tubercle is not a new invention by European physicians, but it has been highly spoken of in ancient Hindu Medical works written over a thousand years ago.—*Practical Medicine.*

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**TREATMENT OF AORTIC ANEURYSM.**

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Pierret and Duhot (*Echo medical du Nord*) report three new cases of aneurysm in which an intravenous injection of 0.6



gramme of salvarsan brought prompt relief from previously continuous pain. In each of these cases the Wassermann reaction was positive, and in none did any untoward results follow. In one case the pain returned in three weeks, after a long walk, but was gradually again relieved by a series of twenty injections of benzoate of mercury. In no instance was the size of the aneurysm, as shown by radiography, diminished by the treatment. They believe salvarsan to be without danger in aneurysms of moderate size, provided no other contraindicating lesions are present. The blood pressure is practically uninfluenced by the remedy, the tendency being rather toward a slight fall than a rise. Pain and dyspnea are relieved much more quickly than by mercury. In view of the undoubted efficacy of the latter agent and its more ready administration, however, Pierret and Duhot believe it should be reserved for cases in which daily mercurial injections and full doses of potassium iodide have failed to benefit. *Charlotte Medical Journal*.

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## OBSTETRICAL

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### SECOND OPERATION FOR EXTRA-UTERINE PREGNANCY.

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Stuart McGuire, of Richmond, *Old Dominion Journal*, January, 1913, in a series of thirty-five cases, had five requiring a second operation, six that bore normal children, the remainder not being traceable. Richard R. Smith, of Grand Rapids, tabulated 2,998 cases of operation for ectopic gestation with recurrence in 113— $\frac{3}{8}\%$ . Three of Smith's thirty personal cases subsequently bore children normally. In discussing the difficult problem of radical operation, sterilizing the patient, McGuire sagely remarks that all of the women who had a repetition of the ectopic pregnancy favored it and all who had borne normal children disapproved, and he emphasizes that the patient before operation is not in a position to judge correctly. The operator must therefore decide according to social conditions, as age, desire for offspring, number of previous children, and also with regard to the pathologic states encountered.—*Buffalo Medical Journal*.

# Editorial

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PUBLISHER'S NOTICE—The Journal is published in monthly numbers of 48 pages at \$1.00 a year, to be always paid in advance.

All bills for advertisements to be paid quarterly, after the first insertion of the quarter.

Business communications, remittances by mail, either by money order, draft, or registered letter, should be addressed to the Business manager, C. S. Briggs, M. D. corner Summer and Union Streets, Nashville, Tenn.

All communications for the Journal, books for review, exchanges, etc., should be addressed to the Editor.

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## TENNESSEE STATE MEDICAL ASSOCIATION.

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The annual meeting of the Tennessee State Medical Society has just come to a successful close. This meeting was one of the best in point of attendance and character of the scientific matter presented in the history of the association. More than three hundred and fifty physicians were in attendance. Many interesting papers were read, and without wishing to slight any we want to compliment Dr. Crile of Cleveland, on his paper dealing with shockless operations. It was not only valuable for what it represents, but also because Dr. Crile's work is an inspiration to all, young and old, to do scientific as well as research work. There were also several good papers on Hygiene and Sanitation, which we think should always form a prominent part of the program of any medical society.

Dr. D. L. Flanary read an exhaustive and interesting paper on "Business Side of Medical Practice," which should have provoked more discussion from the city physician than it did. Unfortunately for the young practitioner the older members of our profession lose interest in the financial side of medicine and seem to consider discussion of such matter beneath their dignity. This is wrong and selfish, and any well known practitioner who leads a movement for the improvement of the economics of medical practice will not only find willing helpers but will do much to perpetuate his name in the medical history of Tennessee.

A noteworthy matter brought before the society and passed was

protection for a small fee of all members in good standing against malpractice suits. This is another move binding the profession closer together.

An enjoyable smoker by the local profession was tendered the visitors Wednesday evening. The meeting adjourned sine die Thursday afternoon after the election of the following officers for the ensuing year:

President, W. D. Haggard; Vice Presidents, for Middle Tennessee, Dr. E. M. Holmes, Murfreesboro; West Tennessee, Dr. Robert Mann, Memphis; East Tennessee, Dr. H. P. Larrimore, Chattanooga. Secretary, Dr. Perry Bromberg, Nashville. Counsellors, First District, Dr. T. J. Cobb, Shelbyville; Second District, Dr. S. K. Miller, Knoxville; Fourth District, Dr. Walter Dotson, Gallatin; Sixth District, Dr. Jos. T. Gallagher, Nashville; Eighth District, Dr. B. V. Yancey, Jackson; Tenth District, Dr. B. Dixon, Covington. Trustee, Dr. C. J. Broyles, Johnson City. Delegates to American Medical Association, A. B. Cooke, M.D., Nashville; alternate, W. S. Farmer, M.D., Cookeville; S. M. Miller, M.D., Knoxville; alternate, George R. West, M. D., Chattanooga. W. T. B.

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DR. W. D. HAGGARD.

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Dr. W. D. Haggard, though a young man, was unanimously elected President of the Tennessee State Medical Society. We wish to congratulate both the doctor and the society. The one, because his colleagues have rendered him this signal honor, the other, because it has chosen a man so well suited to the position, not only because he is a skilled surgeon, but also because he is a man of national reputation, a good mixer and an eloquent orator. Dr. Haggard also has the honor of being secretary of the Southern Surgical and Gynecological Society, and we venture to predict that some day he will be president of that well known association. Here's hoping. W. T. B.



DR. FLAVEL B. TIFFANY SENDS GREETINGS.

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Dr. Tiffany is now making a tour of the world, visiting the Eye and Ear Clinics of the principal hospitals and colleges.

While in India he made a special study of the celebrated Indian operation for cataract, with the originator, Col. Smith, of Bombay.

Dr. Tiffany expects to return the last of April, when he will be pleased to see his friends and patrons at his office, 805 McGee Street, Kansas City, Mo.

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## DEAR DOCTORS

If you did not attend the last meeting of the Middle Tennessee Medical Association you missed one of the best scientific programs ever presented before a medical society in the State, to say nothing of the very delightful social features of the occasion.

The next meeting will be held in Dickson on Thursday and Friday, May 15, 16, 1913.

You are invited to read an essay, the title of which must be received by the Secretary not later than May 1. If you intend writing a paper send your subject now before you forget it. The officers of the association would like to insist on more papers from the country physicians. They have not been doing their duty in this respect, much to their discredit and to the sacrifice of the best interests of the society.

If you have not been attending the Middle Tennessee we invite you to come to this meeting and see what you have been denying yourself and us. We shall be glad to have you on the program.

Our last meeting was a record breaker. Let every one pull for the best one yet at Dickson. Come and bring a new member.

Faternally yours,

R. W. BILLINGTON,

*Sec. and Treas.*

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THE GLASGOW LISTER WARD AND MUSEUM.

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As a memorial to the late Lord Lister, and as a means of perpetuating his memory in a way that it is hoped will prove both

interesting and instructive to every member of the medical profession for all time to come, one of the wards in the Royal Infirmary, Glasgow, in which he worked out and first put into practice the principles of antiseptic surgery, is to be reserved and utilized in the following way. One part of the ward is to be refurnished as it was in his time with such objects as it may be possible to acquire; while the other part is to be made into a museum for the exhibition of anything associated with the life and work of the great master.

It is, therefore, asked that any who may have letters, pamphlets, books or other objects of direct personal association with Lister and his work will either present or loan them to the museum.

Prof. John H. Teacher, M.D., Hon. Curator of the museum, will be pleased to receive any objects addressed to him at the Royal Infirmary, Glasgow, Scotland.

The names of all donors or senders of objects are to be affixed to the exhibits.

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#### DENTAL INTERNE (Male).

April 2, 1913.

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The United States Civil Service Commission announces an open competitive examination for dental interne, for men only, on April 2, 1913, at the places mentioned in the list printed hereon. From the register of eligibles resulting from this examination certification will be made to fill a vacancy in this position at \$600 per annum, with maintenance, in the Government Hospital for the Insane, Washington, D. C., and vacancies as they may occur in positions requiring similar qualifications, unless it is found to be in the interest of the service to fill any vacancy by reinstatement, transfer, or promotion.

The department states that it reserves the right to terminate the appointment at the expiration of one year of service if it is deemed advisable to do so.

As insufficient eligibles were secured from the examination

for this position held December 11, 1912, qualified persons are urged to enter this examination.

In addition to the many interesting cases presented, the dental interne is given an excellent opportunity for study and for doing experimental and research work in the pathological, histological, and other laboratories of the institution.

Competitors will be examined in the following subjects, which will have the relative weights indicated:

<i>Subjects.</i>	<i>Weights.</i>
1. Letter writing (the subject matter on a topic relative to the practice of dentistry)-----	5
2. Anatomy and physiology (general questions on these branches, also with special reference to the teeth, mouth, and head)-----	10
3. Chemistry, materia medica, and therapeutics (the preparation, properties, and reactions of chemicals, crude drugs and their preparations, their action and application, with those of other therapeutic agencies)	15
4. Dental pathology and oral surgery (the morbid processes incident to diseases and injuries of the teeth, mouth, and contingent structures, and their surgical treatment) -----	20
5. Operative and prosthetic dentistry (the detailed technics of general and special operative and laboratory work	25
6. Bacteriology, histology, and hygiene (the cultivation, isolation, demonstration of bacteria, the principles of sterilization, mounting specimens, use of microscope, the principles of general and oral hygiene, etc.)-----	10
7. Orthodontia (local and constitutional irregularities in growth and development of the teeth, and their correction) -----	15
Total-----	100

Applicants are required to be graduates of regularly incorporated dental colleges, and applications will not be accepted from persons who have been graduates more than two years.



Statements as to training, experience, and fitness are accepted subject to verification.

Applicants must be unmarried.

Age, 20 years or over on the date of the examination.

This examination is open to all male citizens of the United States who meet the requirements.

Persons who meet the requirements and desire this examination should at once apply either to the United States Civil Service Commission, Washington, D. C., or to the secretary of the board of examiners at any place mentioned in the list printed hereon, for application and examination Form 1312. No application will be accepted unless properly executed and filed with the Commission at Washington. In applying for this examination the exact title as given at the head of this announcement should be used.

As examination papers are shipped direct from the Commission to the places of examination, it is necessary that applications be received in ample time to arrange for the examination desired at the place indicated by the applicant. The Commission will therefore arrange to examine any applicant whose application is received in time to permit the shipment of the necessary papers.

Issued February 25, 1913.

## Reviews and Book Notices

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*The Surgical Clinics of John B. Murphy, M.D.*, at Mercy Hospital, Chicago. Volume II, No. 1 (February, 1913). Octavo of 179 pages, illustrated. Philadelphia and London. W. B. Saunders Co., 1913. Published Bi-Monthly. Price per year, paper, \$8; Cloth, \$12. W. B. Saunders Co., Philadelphia, London.

Our acknowledgments are due the obliging publishers for a copy of this invaluable quarterly publication. As with former numbers, this one is full of good things. These clinics show what a great surgeon is doing, and illustrates fully the trend of surgical progress at the hands of the leading exponent of surgery in the United States. Every lecture is replete with excellent instruction, and to one who can not have the advantage of hearing the lectures delivered in *propria persona*, they are valuable in the extreme. Among the excellent lectures is one on the Open Treatment of Fractures, by Mr. W. Arbuthnot Lane, of London, which of itself is worth the price of the book. Every one who wishes to keep in the van of surgical work should subscribe to Murphy's Clinics.

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*Epidemic Cerebrospinal Meningitis.*—By Abraham Sophian, M.D., formerly with New York Research Laboratory. Twenty-three Illustrations. St. Louis. C. V. Mosby Co., 1913.

We are in receipt from the enterprising publishers, C. V. Mosby Co., of St. Louis, of a copy of this timely monograph. The recent prevalence of this terrible disease in many sections of the country and its distressing mortality make the appearance of such a work particularly welcome to the profession. This work has the distinction of being the only monograph in English on this important disease. The opportunities of the author in the research laboratory of New York and in the epidemic of the disease in Texas in 1912, has been unusually great and have placed him in a very authoritative position to write upon the disease. The author's object has been in this work to describe the clinical and laboratory findings of the disease and to familiarize the readers with their application in treatment and the clinical analysis of the disease. A very useful work and one that should meet with a wide acceptance from the profession.

## Publisher's Department

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"It is during the spring months more particularly that the physician is called upon to treat patients, who though not ill enough to be in bed, are not at all well. Their appetite is capricious, they sleep indifferently, or even if they sleep soundly they are not refreshed, and in the morning they are almost as fatigued and ill at ease as was the case on retiring. Upon awakening there is frequently an aching sensation in the loins sometimes in the lower limbs, which may partially wear off as the day progresses, but there is at all times a vague, undefined, uneasy painful feeling.

The symptoms are very much like those experienced in malaria, but the causes are entirely different and a different treatment is necessary.

This condition arises from the fact that in the spring the eliminative functions do not present their usual activity owing to the torpor and locked-up secretions which have existed during the winter months, when the skin neglects its duties and the kidneys are overworked.

If the condition remains neglected the probable result will be sooner or later a pronounced attack of rheumatism or grip in one or another of its forms. All this is needed to induce such an attack is a sudden change in the weather or the exposure on the part of the patient to cold or wet or to a combination of both. This is due to a latent diathesis to which every adult is liable.

The necessity of a powerful eliminative in every prescription for rheumatism and grip is self-evident. While anti-pyretics and anti-periodics may slightly stimulate the excretions and relieve congestion, thereby controlling certain features of the disease, a complete cure can not be expected until the poisons are thoroughly eliminated from the system and the diseased organs enabled to resume normal functions.

In the treatment of all rheumatic, neuralgic and grippy conditions, Tongaline, by promoting the absorptive powers of the various glands which have been clogged, and by its stimulating action upon the liver, the bowels, the kidneys and the skin, will



relieve the pain, allay the fever, eliminate the poisons, stimulate recuperation and prevent sequelae."

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Pepsin is undoubtedly one of the most valuable digestive agents of our *Materia Medica*, provided a good article is used. Robinson's Lime Juice and Pepsin, advertised in this issue, we can recommend as possessing merit of high order.

The fact that the manufacturers of this palatable preparation use the purest and best Pepsin, and that every lot made by them is carefully tested before offering for sale, is a guarantee to the physician that he will certainly obtain the good results he expects from Pepsin.

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# NASHVILLE JOURNAL — OF — MEDICINE AND SURGERY

CHARLES S. BRIGGS, A. M., M. D., Editor

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VOL. CVII.

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## Original Communications

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GENESIS OF THE CRAMP OF WRITERS AND TELEGRAPHERS—CASES—THE RELATION OF THE DISORDER TO OTHER NEUROSES—CASES—PATHOGENESIS. PRINCIPLES OF TREATMENT.

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By TOM A. WILLIAMS, M.D., Washington, D. C.

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Scrivener's palsy, writer's cramp or tremor, is the commonest occupation neurosis, because writing is the most widespread manual art which exacts the frequent repetition of the same movements. But the differences of pathogenesis can not be expressed in terms of the kind of handicraft affected. To express them in terms of muscle function or topography or even perhaps of functional "centre" is also misleading, as the analysis of cases clearly shows.

The mechanism of professional cramp is always psychological. Accordingly the treatment must address itself to the psyche. It must be clearly understood that the disorder of the apparatus is not structural but regulative. It is not an incapacity of muscle and nerves to perform their function, for this is intact, except for performing the particular professional acts which fail. A want of harmony in the controlling of the mechanism is the fault. We have not even to deal with the kind of want of harmony which occurs upon the destruction or toxic inhibition of a cortical cen-



tre, such as happens in aphasia. Professional cramp is a strictly *psycho-dynamic inhibition or disorder in the habitual series of coördinated associations gained by education in some art.*

It has been placed in a class apart from the tics, on account of certain peculiarities which have been regarded as essential. But the differences are less essential than adventitious, and none of them conflict with the definition of true tic. Hence, both as regards genesis and treatment, occupation-cramp-neurosis should be regarded as a form of tic.

The chief source of error of former writers is to look upon the mechanism of occupation cramp as an immediate deprivation of function. A deeper analysis shows that a particular function is impossible only because another act, viz., the derived movement or cramp, tremor or atonia, has preëmpted the muscles so that they can not at the same time perform the desired act. It is this supernous, though coördinate purposive and once voluntary, set of contractions which by definition (note) constitutes a tic. (Only because of the occurrence of this other motor phenomenon is the patient unable to make the habitual movements of his art. This interpretation has been hidden by the fact that the tic usually begins and preponderates in or near the very muscles used in the occupation; and this has in the past obscured its analysis. (See Jour. Abnom. Psychol., 1912, O Ct.)

Only a searching analysis, which exposes etiology, can lead to successful treatment.

The following case shows in some degree the kind of objects the examiner has to deal with should look for.

#### CASE OF WRITER'S CRAMP ARISING FROM IMPATIENCE OF ROUTINE LETTER WRITING.

L., married woman aged 38, referred by a physician relative on account of aching in the back and inability to write much, on account of pain in hand, arm and shoulder. It first occurred seventeen months before, after much writing in acknowledgement of Christmas gifts, etc. But much writing had always tired her, because she held her pen too tight. There has been no special anxiety or ill-health upon this occasion.

*Family History.*—Negative, except that her sister was very timid, and that all the children were bashful, from being held back; her own children are in good health.

*Personal History.*—As a girl she was delicate and anæmic, There were no difficulties of menstruation, which began at 16, and created no psychological perturbation, as she was intelligently enlightened. She used to go North in the springtime, on account of the heat. She played quietly there, vigorous exercise being too tiring. She read much, and was less dependent upon companions than most girls. She was also fond of sewing and the piano, but did not exceed in either. She was perfectly tranquil and happy, a little timid in company, but without fears or qualms. She was conscientious and particular and much distressed by any rare failure in school. She disliked leaving; her favorite study was mathematics. She liked drawing and painting, and kept them up after leaving.

Cooking was given up from the fatigue caused. Aged sixteen, walking tired her much in the front of the legs. A craving for chalk and other minerals lead her to take them, only occasionally. She developed a fear of mice and rats. She remembers no erotic fancies or dreams. After leaving school, her life was uneventful; she did not dance to excess. She had a severe attack of malaria at 25. Child-bearing ceased spontaneously. Menorrhagia occurred, and an operation was undertaken, which relieved her.

For the last few years, she has had recurrent, severe headaches lasting days at a time and requiring powerful drugs to arrest them. They were not determined by emotion. Twice during these, after influenza, spots came before the eyes, and the page she was reading would blur for some hours, and there was numbness of the left limb and side of the tongue. Numbness has occurred on other occasions, but never on the right side. There has been no constipation, dyspepsia, vomiting nor nausea during the headaches. There are no prodromes, but sometimes the catamenia postpones them for a week. She is not sure if they are ever determined by emotion.

*Physical Examination.*—She looks healthy, equable, well nourished and powerfully built. There is no disease of the alimentary,

respiratory, circulatory, genito-urinary nor integumentary systems.

*The Nervous System.*—Motility is very strong and equal. There is no modification of the reflexes.

Sensibility to temperature, pin prick, touch, compasses, is not abnormal; but the diapason is felt less clearly on the right hand, wrist, shoulder, elbow and external malleolus of the ankle. This is more marked on the radial side of the arm.

Stroking is better felt and more ticklish on the left arm than on the right.

*Sight.*—She thinks she can see further to the left, but there is no hemianopsia, dyschromatopsia nor visual defect.

*The Writing.*—Her position is faulty, the wrist and elbow being turned so that the back of the hand is outward, and she uses mainly the extensors of the wrist and fingers. The elbow is turned outwards very awkwardly. The arm and shoulder is held very stiff, and she clasps the pen, a short one, very tightly in the fingers. She sometimes drops the pen, and on some occasions her sewing may fall from the hand, and certain kinds, more particularly hemming, she can not do. For a time, too, she feared to lift heavy crockery, thinking she might drop it, because the thumb would quiver in certain positions.

#### THE GENESIS OF THE CRAMP.

Her writing has always been jerky, because she hates it; but pain has only occurred since Christmas, seventeen months ago. It varies with the amount of writing, and was worse during a pleasant visit when she was doing nothing in particular. It had, however, been severe before she left home. The cramp and other symptoms came on after a period of stress while her sister's children were in hospital with scarlet fever. Her sister was then staying with her; and she feared for her youngest child, who had not had the disease; for although the doctor believed that the children upon recovery were safe, she could not help dreading infection, because her nephews had contracted the disease. The constant *prepossession of these fears increased the tension of mind* with which she always accomplished the *writing of the distaste-*



*ful formalities* incident to Christmas. She *hastened her writing more and more*, and in consequence became *more and more cramped*, so much so, that she became unable even to hold up a newspaper, so constant was the cramp of the muscles. From possessing the reputation of writing faster than anyone she knew, she had to descend to ceasing writing entirely.

*Treatment.*—The pathogenesis of her inability was explained thoroughly, and she was instructed to begin slow writing exercises in a large, round hand. Only a little was to be done at a time, four or five times a day. The following week there was much less pain, except when she had to use her arm much; two minutes was her limit of endurance, after which the muscles would tighten in spite of her.

*Process of the case and further analysis.*—At times there is pain in the shoulder, even when lying down and during sleep. To obviate this, she has to hold her head well back. This first occurred after running hard before breakfast on account of being alarmed. There is a creaking of the left shoulder joint when it is moved. There is no tenderness of the skin there; but sometimes the muscles are tender, especially after she has one of her headaches. For these I prescribed a mixture of alkaline sulphates and bi-carbonates, to be taken morning and night four days before the catamenia, and when headache threatened. She was instructed that the evening meal should consist mainly of carbohydrates and succulent food. My endeavors to see her during or after a severe headache did not succeed. But some days after a very severe headache, I found a marked subjective hyperæsthesia to the tuning fork over the right elbow, ankle and knee. There was also a contralateral flexion of the toe on stroking the sole. The neck was constrained and painful. There was interlacement of the visual fields.

The arteries of the fundus oculi appeared very small, ratio of the arteries to the veins being 1-4. There was no projection of the papilla nor haziness of its margin. One week later, no headache having occurred, the hyperæsthesia to the tuning fork was less marked. The right knee reflex was perhaps less responsive

than the left. The ophthalmic arteries were no longer small, and there was dyschromatopsia only in the temporal fields.

The writing, however, was even worse.

She has never presented astereognosis, impairment of attitude-sense, dysdiadocokinesis. Her neck still hurts on movements, but much less than before, and no longer while in bed, even when extended. She was instructed in free calisthenic movements of the shoulder and arm.

Two months later she was much improved, only one headache having occurred, but she does not write much. Since then the improvement has been uninterrupted. The writing is practically normal, and she can conduct the correspondence demanded by her social position.

The specimens of this patient's handwriting, showing her improvement, were published when the case appeared, in the author's memoir in *Journal of Neurol. u Psychol* (Leipsig), 1912. Bd. 19.

Not all occupational disabilities are psychic, however. Contrast the following case.

#### A CASE OF OCCUPATIONAL INCAPACITY DUE MERELY TO PHYSICAL WEAKNESS.

A. S. A., telegrapher, aged 63, complained of a weakness of the wrist muscles without paralysis. He "can not send his writing over the wire unless he raises his elbow off the desk, and that tires him."

*Personal and family history.*—He has been an operator for over 40 years, has never been a drinking man, but smokes about four cigars and chews about four ounces of tobacco per week. He has always stammered in speech.

*Physical Examination.*—The deep reflexes are a little exaggerated, but there is no sclerosis of the blood vessels or other senile disturbance. However, there is a distinct diminution in the thickness of the right upper extremity. While the thickest part of the left forearm measures nine inches, the circumference of the right is only eight and seventh-eighth inches. In the upper arms, the circumference is  $9\frac{1}{2}$  inches of the left and  $9\frac{1}{4}$  inches

of the right. On the other hand, the right wrist is slightly larger than the left. The muscles of the right arm, besides being diminished in volume, are in a condition of hypotonia.

*Psychic symptoms* are absent, there being no anxiety or phobia, and the man, indeed, who has felt his weakness for eight or ten years, continues his work efficiently enough to maintain his position, though fully conscious of his diminished capacity.

*Interpretation.*—The contrast with the other case is striking. Although in this old man, the atrophy which precedes from over-use has reached a degree where it can be measured, yet his relative occupational disability has provoked no morbid psychological reaction. Neither cramp nor tremor has appeared, and work is continued as far as capacity allowed.

#### CRITICISM OF ORTHODOX INTERPRETATIONS OF OCCUPATIONAL CRAMP NEUROSIS AND THE TERM NEUROSIS.

Occupational cramp has been explained as a fatigue neurosis of muscles, of nerves and finally of centres. But as it is not repaired by rest, how can this be? Besides, the same act can be done with other implements, e. g., cases which can write with pencil and not with ink.

It is far-fetched to suppose that "neurosis" can shift from one to another group of muscles or their centres. Besides, the term "neurosis" often explains nothing but the interpreter's ignorance of the process at work. Besides, "neurosis" does not last for years without further impairment shown by additional symptoms, while psychosis, that is, ideational and emotional habitus, last a lifetime unless modified by stimuli from without or within.

Such an example is the case of a telegrapher\* whose hand-cramp on raising his cup occurred only when he thought of it, and whose cramp began in fear of losing his position.

*Physical symptoms* are not the cause of cramp in themselves, but may furnish the initial motive from which the notion of incapacity or of perverted movements.

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\*Boston Med. Journ., August, 1912.



Such physical disabilities are frequently perpetuated into psychological ones, e. g.

**HYSTERICAL PRURIGO.**—A girl, aged 9, came to the dispensary on account of itching of the right face. Her frequent scratching had kept up pityriasis. This had begun two years before after her father had for some weeks suffered much from furuncle; he had itched all over, scratched much, and spoken of it a great deal. He still does so when he eats pork, thinking that it makes him itch. The little girl had only one boil on the right heel, and this she feared to scratch. It does not appear that the child's face had really been diseased, but I believed that the eruption was kept up by a morbid impulsion; so I prescribed sulphur ointment with the object of inculcating belief; pressed upon mother and child the need of never touching the place, and assured them that the itching would totally disappear in two weeks, which prediction was verified by the result.

*Hysterical typhlitis after appendectomy.*—A girl of twenty was seen because of recurrences of right iliac pain with nausea and vomiting, but normal temperature and pulse, since three months. Two months before the appendix had been removed for similar symptoms, and found little changed, though containing a concretion of lime. At the time, the ovaries and gall bladder were found normal. The pains recurred every few days, and lasted some hours, and were relieved by morphine or the Scotch douche.

*Examination* showed only a psychogenic hyperæsthesia in the right iliac fossa, controllable by indirect suggestion. Some sacral atonia, a slight retroversion and intestinal sand could not explain a manifestly psychogenic tenderness. After consultation for the observation she was convinced by Dr. Watson that a determination to conquer a longing for the comfort and anodynes which sickness brings would cure her. She went back to her home, and remains well a year later.

These examples of hysteria, the suggestion for which arose from an antecedent physical condition, are paralleled in a comprehensible and simple fashion in the traumatised person whose back or shoulder does not recover from a blow, perhaps quite

insignificant except in the patient's mind. Still more simple is the example of the petulant child or woman who nurses and magnifies a trifling hurt into a serious injury because of a morbid way of regarding her privileges.\*

All these symptoms have been perpetuated by a false notion concerning their origin. So that even when a local or general physical state is recovered, as by rest or metabolic regulation and good nutrition, yet cramp or professional disability persists. This fact is too well known to need insistence. Therefore the physical state is not the *cause* of the cramp.

So the genesis of my cases has been searched for in a psychological mechanism, and they clearly demonstrate such psychogenesis. The therapeutic test is a further proof.

The physical treatment does not cure the cramp, but it makes easier the patient's effort, by putting him into the most favorable state of physical vigor for the mental exertion needed in giving the close attention required to wean himself from a bad habit and reëducate his special psychomotor activities into a good habit. That is, a *sequence of energetic discharges of a psychomotor area, which have by association acquired an order not desirable, is changed by intelligent practice into a sequence which conforms to the order desired.*

Coördination then substitutes what is incoördinate, as far as practical accomplishment is concerned.

It is the reacquisition of an impaired or lost efficiency, not due to a fault of the machine, but to an *error in the order in which its parts are put in action*. It is the directing force which needs to be scientifically applied, and not the mechanism which requires repair. *The genesis of occupational cramps.*—The disability is, at its first occurrence, accidental, as from fatigue or stressful effort. But the fact of failure soon creates the fear of future failure. Hence, whenever the act is attempted, fear interferes with harmonious automatism. It is the efforts to overcome this which cause and perpetuate the cramp.

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\*See also ten cases of Hysteria in Postgraduate, June, 1912, and Medical Annals, January, 1912; also discussion Modern Treatment, J. A. M. A., Oct 21, 1912.)

That fact, by an intelligent being, needs interpretation. The obvious one is that of physical disease. This ready explanation is corroborated by medical opinion and procedures.

This ideogenetic\* *effect*† becomes then constantly linked with the inception of the act, and becomes part of the syndrome, although it is not primitive. To attack the *effect* directly is useless; for, by however hopeful an attitude it may be destroyed, the disability of the act persists. If, however, the *anxiety-affect* disappears as a consequence of the removal of its source, the idea which originated the cramp in the first place, then it remains constantly absent, and a cure may be effected, which does not occur when only a consequence, the *affect* is aimed at, even successfully.

The principle is the same as that laid down concerning the traumatic neurosis and hysteria in general, in which removal of an *affect* is only more than evanescently curative, when at the same time, intentionally or not, the genetic idea is itself removed concurrently, that is to say, when the patient is reëducated by the removal of his false belief as to disability. (Jour. Abm. Psychol, June, 1910.)

Not that he himself is usually capable, however well intentional of abolishing his error; for although such cases of instantaneous conversion do occur, it is the rule for a considerable time to be required for penetration of the new mental attitude sufficiently effective to influence conduct. A passive acquiescence has no dynamic effect, and cases which assent readily, do so only because they have not realized the significance and bearing of the truthful idea; indeed, when they are forced to analyze their thoughts, it is found that they have not comprehended what the physician has tried to convey.

Their state is acceptance and not conviction. The latter connotes conflict, and that is usually neither ready nor speedy.

#### THE PRINCIPLES OF THE PSYCHORTHOPAEDICS.

*Treatment.*—Part of our treatment is the getting rid of the reinforcement derived from injudicious advice and measures, for

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\*Conceptional.

†Emotion or feeling usually unpleasant.



if not, every attempt to write at once arouses the fearfulness for a damaged member or nervous mechanism.

Again, pernicious habit-attitudes have to be fought. This, however, is best done indirectly through a planned orthopoetics, directed towards a new automatism, gained, as was (in childhood), the old one.

The aim consists of a reconstitution of the impaired function under psychological conditions unfavorable to the tic which impairs it. The chief means is graduated exercises of the function. In order not to excite the cramp tic these must be performed with great care, but without anxiety, very slowly and with attention to minutiae. The sittings should be frequent, but short, ceasing as soon as attention flags.

It is not the exercises themselves which are curative, for unless the patient's mental attitude is reformed the exercises are useless. Automatic performances are actually hurtful.

As regards writing, Meige has adopted a formula of *round, large, often and little at a time*. The largeness is the best assurance of sweep and freedom, without which the cramp will recur. The roundness renders the changes of direction gradual, for abrupt arrests tend towards cramping. Frequency is required both to exercise the attention and to attain once more a useful habit. Fatigue must be avoided by short sittings.

A new automatism is freer from tendency to cramp than is the older one, provided that are borne in mind the precautions against cramping, viz., slowness, largeness, roundness, frequency and little quantity. Hence, a new position and style of caligraphy is to be recommended. This is the more easy and advantageous in proportion as the old position and style was faulty.

These principles have in my hands proven of great efficacy whenever the analysis of the etiology has been completed. A still fuller description of the procedure employed in psycho-analysis, revelations of such a case is to be found in *N. Y. Med. Jour. Mch.*, 1913. See also memoir cited. The comparative unimportance of the sensual factor *per se* is apparent enough, the missions of some students of psychogenetic disorders notwithstanding.

1705 K. St.

## Proceedings of Societies

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ACADEMY OF MEDICINE, CINCINNATI, OHIO.

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Monday, March 31, 1913.

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### *Case Report Night.*

1. Intramural Cyst of the Abdomen.—Dr. D. D. McNeen.
2. Cæsarean Section for Cancer of the Uterus.—Dr. M. A. Tate.
3. (a) Posterior Gastro-Enterostomy for Cancer Obstruction of the Pylorus, with X-ray Plates Before and After Operation.  
(b) Posterior Gastro-Enterostomy for Obstruction of Pylorus Due to Ulcer Cicatrix, with Plates Before and After Operation.—J. Hadley Caldwell.
4. Gunshot Wound of the Abdomen.—Dr. Walter R. Griess.
5. Case Report.—Dr. W. D. Haines.

### NOTES.

Dr. J. A. Stucky, of Lexington, Ky., was made an honorary member of the Academy of Medicine.

Dr. Charles J. McDevitt and Dr. Charles T. Perin were elected to membership.

Dr. S. Dadakis resigned on account of moving to New York.

Application was received from Dr. Louis Howard Shriver.

The following committee on A. M. A. transportation was appointed by the Chair: Drs. J. E. Pirrung, Robert Carothers and Jos. Hall.

Dr. J. Ambrose Johnston presented a specimen of tumor removed from inguinal (glands), which developed following injury to the thigh; probable carcinoma. Microscopic report will be made later.

Dr. J. E. Pirrung reported a case of perforating duodenal ulcer operated three hours after perforation. Medonal anæsthesia; con-

valescence well established. No post-operative vomiting and no peritonitis.

Dr. Edwin M. Baehr read "Contributions to the Study of Epilepsy in the Last Two Years." Dr. Baehr's paper was a careful resumé of the best that has been written on this subject the last two years. Statistics seem to show conclusively that alcoholism in all its forms has a definite relation to the frequency of epilepsy, and the hereditary element is as potent as any other etiological factor.

Discussed by Dr. Charles A. L. Reed, who discussed the relation of gynecological conditions to epilepsy, and said while double oöphorectomy was at times followed by relief of the type that develops at puberty, many cases were discouraging in results.

Dr. Frank L. Rattermann read a paper on "Diagnosis of Diseases of the Alimentary Tract." Dr. Rattermann confined his paper largely to the proper conduction of a physical examination of patients suffering from alimentary disease, taking up procedures useful in detecting disease. Detail of technique of physical examination was the main feature of the paper. Special emphasis was laid on gastric conditions, and reference was made to gastric analysis and possible source of error in test meals, etc. A strong plea was made for a careful analysis of the history, and the result of a careful physical examination.

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SECTION ON SPECIALTIES.

April 7, 1913.

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Paper.—"Suspension Laryngoscopy, with Demonstration on Patient and Report of Cases."—Dr. Samuel Iglauer.

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NOTES.

The Program Committee desires that the essayist present an abstract of papers intended to be read before the Academy to the Section Committee two weeks before reading.

After the application of Dr. Summersgill had been handed in and passed by the Board of Censors, he was nominated and duly elected an honorary member of the Academy of Medicine.



Dr. Charles E. Hauser and Dr. Louis Howard Schriver were elected to membership.

Dr. J. E. Pirrung, Chairman Transportation Committee A. M. A., reported that the Pennsylvania Railroad had been selected as the preferable route to the annual meeting of the A. M. A.. Special car or cars will be run straight through via Chicago, where they will be attached to the A. M. A. Special over the Burlington routs.

The motion of Dr. J. C. Oliver, put two weeks ago, was acted on and carried, viz.: That the annual dues of the Academy of Medicine be \$5.00. This increase takes effect in 1914.

Dr. Walter R. Griess presented a specimen of gall-bladder removed with stones *in situ*. It was a case of ruptured gall-bladder, and the diagnosis was made before operation on general symptoms, bile in urine and no jaundice. Dr. E. M. Baehr asked how the bile became excreted by the kidneys. Dr. Griess replied through absorption from general peritoneal cavity.

Dr. J. E. Pirrung presented a specimen of colon removed (colectomy) for intestinal stasis, which persisted even after a short circuiting operation had been done a year ago. There was a narrow point in the colon below the anastomosis.

Dr. William C. Herman presented color photograph of diabetic gangrene of the foot, which showed no line of demarcation. Case was fatal and was not operated on. Dr. Rriess said that while he did not urge operation in these cases, "Cellasin" had been very beneficial in a number of cases in his experience.

On motion of Dr. Jos. Ransohoff, seconded and carried, the Academy went into executive session. Dr. Ransohoff then reported as a member of the committee appointed by the Cincinnati Hospital stall to coöperate with a committee from the Academy of Medicine, to raise a fund to meet any want that has arisen among *members of the medical profession*, as a result of the floods in the immediate and surrounding territory. On motion by Dr. W. D. Haines, seconded and carried, the chair appointed Walter R. Grimes, J. E. Greiwe and Charles A. L. Reed, *ex-officio*.

Dr. Joseph Ransohoff then suggested that lay press reporters

be excluded from the regular meeting as is customary in other societies and because of some recent publication of reports of scientific work presented to the Academy. He said that the press report gave only one side of the argument, and that equally good men had taken opposite views, and that the lay press publication had probably done harm. Dr. Wm. Gillespie made a motion that a committee of three be appointed by the Chair to amend the by-laws so the Academy could control the lay press publications. Carried. Committee appointed by Chair: Wm. Gillespie, Jos. Ransohoff, E. W. Mitchell.

On motion executive session closed.

Dr. D. D. DeNeen reported an intramural cyst of the abdominal parietes, with pus tubes and ovaries from the same case. Dr. Ransohoff asked as to the pathology of the cyst. Dr. Deneen said it was possibly cyst of the urachus.

Dr. M. A. Tate reported a Cæsarean section for complicating carcinoma of the rectum high up. (*Bulletin* read of "uterus" instead of "rectum" by mistake on program.) This case had a large mass in sacral portion of pelvis obstructing normal delivery, and it was necessary to do a Cæsarean section to effect delivery. Mother and child lived.

Dr. John Hadley Caldwell reported in detail, with X-ray plates before and after operation, the following two cases successfully operated; both recovered: (1) Posterior gastro-enterostomy for cancer obstruction of the pylorus; (2) posterior gastro-enterostomy for ulcer cicatrix causing obstruction.

Dr. Walter Griess reported a gunshot wound of the abdomen with fourteen perforations of the hollow viscera. Patient made good recovery for fourteen days and then developed septicæmia due to septic thrombosis of the femoral vein. This thrombus with inguinal gland was removed at a second operation, and patient recovered. Dr. J. C. Oliver asked if the abdomen was flushed at time of first operation. Dr. Griess said he had not been guilty of flushing the abdomen since he left the City Hospital. Dr. Haines, in discussion, said the interesting part was the complication. He held thrombosis would at times occur in apparently

clean cases. He has cases occur in his practice, some in clean cases, but he thought thrombi were all infectious in character.

Dr. W. D. Haines reported a case of perforating appendicitis and rupture. Operated ninety-six hours after onset. History: No temperature until after eighty hours from onset, and no vomiting from eighty to ninety-six hours, when temperature was present. Perforation found in head of cecum and in appendix at operation. Recovery.

Dr. Charles E. Caldwell presented a case of intestinal obstruction with operation and fatal outcome. Acute obstruction for four days treated with heavy purgations; brought into hospital in bad condition. Intestines a tangled mass of adhesions; gut emptied in two places. Colon contained tumor mass of feces. Dr. Griess discussing, said in this type of case it was often best to do a simple enterostomy and get out and take a chance.

Dr. Sidney Lange presented X-ray plate of cervical rib. It was a very clear and beautiful demonstration. Patient of Dr. Percy Shields, who had made the diagnosis before the plate was made.

Dr. Charles T. Souther reported the case of a patient on whom he had done a fibroid hysterectomy two years before. She became constipated, was treated by her physician for two days, and vomited profusely as a result of cathartic. On examination abdomen was found flat, and mechanical obstruction ruled out. Expectant treatment for thirty days, after which bowel was thought able to stand a physic. Two drops of *ol. tigllii* produced a stool. Case recovered.

Dr. Rufus B. Hall said, in reference to cases reported by Dr. Caldwell and Dr. Souther, that a great deal of judgment was necessary to handle these cases, and we should do what was best for the patient. They would frequently be tided over by enterostomy. Physics did a great deal of harm, and the complete operation could only be done on the early cases. Many late cases will die for all of us. Do a brief operation to tide over, and many cases will not need a second operation. Dr. J. C. Oliver said drainage or enterostomy will aid late cases. Complete operation should be done on early cases.



## Selected Articles

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### SOME SURGICAL MARVELS.\*

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BY JOSEPH B. BISSELL, M.D., New York.

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*Visiting Surgeon to Bellevue and St. Vincent's Hospitals.*

While entirely praiseworthy in its original motives, the new publicity campaign which has been inaugurated to instruct the lay mind in the early symptoms of disease has one serious disadvantage. As a result of the early diagnosis and consequent favorable termination of hitherto fatal disease, the public, or that portion of it which gets its medical education from the newspapers, is being instructed to look for miraculous cures. This is unfortunate. Lured on by elusive journalistic descriptions of quick and sure cures the disappointment which is sure to follow when it becomes apparent that many of the illnesses are still incapable of cure will tend to react seriously against the ability of the medical man, and especially of the surgeon, to carry out satisfactory treatment, and will eventually do harm to the general public, as well as retard scientific surgery. Imperative or operative treatment will be postponed or refused and resort most likely be had to quacks and other advertising specialists, seriously handicapping subsequent proper treatment by the delay and probable misdirected attempts to relieve or alter morbid processes. The earlier we discover the presence of disease the better are the chances of recovery under suitable handling. In this campaign of instruction the idea of the profession is to get the public to recognize early and immediately report to their medical adviser any evidence of change of the normal structures, tissues or functions of the human body before malignant or incurable alteration takes place. But instead of obtaining these observations and such other information as we need in the public press, new and astounding operations and wonderful remedies are described, teaching the

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\*Read before the Society of the Alumni of the City Hospital, December 18, 1912.

people to expect miraculous and permanent restorations to health, when the actual facts obtained later, but not published, show these successes to be in almost every case failures. It is needless to say that most of these phenomenal operations are fakes pure and simple, or conservatively speaking, the effusions of over enthusiastic surgeons assisted by their too zealous newspaper friends.

In the morning newspapers of a few days ago was a full technical description of the operation of making a new humerus of a boy whose arm had been destroyed in an accident, with the story of the latter. The name and address of the operating surgeon and the hospital to which he is attached were published, as well as the names and addresses of his assistants, the patient, and the patient's family. The operation consisted of inserting the bone of a rabbit's leg in place of the destroyed arm bone. The newspaper statement was to the effect that the operation was successful, although the grafting process only took place on the day preceding the publication of the article. The absurdity of such an assertion is self evident, even to the casual reader. All the scientific knowledge we have acquired about the transplantation of bone structures teaches us that it is impossible to grow the bone of an animal in a human creature, and it also teaches the impracticability of transplanting a bone or parts of a bone from one human being to another with favorable results, or in other words, we must use bone from the person on whom we are operating in order to make bone graft grow and form a bridge between bone fragments. In the case mentioned a piece of railroad iron would have been just as valuable and have accomplished as much good for the patient as did the rabbit's leg. It is to be regretted that reputable newspapers constantly circulate, seemingly with authority, these ridiculous statements of operative misinformation. Not only are they silly, but they may do actual harm when a disillusioned public realizes the inevitable failures of these widely heralded surgical frauds, and many a patient may be deprived thereby of his rightful chance of a cure. There are miracles enough in the undisputed facts of modern surgical knowledge without going into the fields of romance. The wonderful results accomplished by the research workers of the laboratories when put to

practical use obviously demonstrate the remarkable advances in surgical achievement. The multitudinous recoveries from a well known widely spread hideous and terrible disease following the use of one of the German laboratory products tell a more vital and striking story than any of the fairy tales of cures so common in the daily prints, and a story, moreover, that has the additional merit of truth.

The Surgeon General reports as a matter of statistics that in the navy of a great world power since the adoption by the medical department a year ago of the prophylaxis of vaccination not a single case of typhoid has occurred. Is not this a marvelous thing? Yet no startling headlines called the fact to the attention of the public, although it is of great importance and well worthy of popular note.

A few years ago the following case would have been considered extraordinary in its success; now it is only one of many in surgical experiences.

R. C. S., an infant 12 weeks old, was seen by me July 8, 1908. A few days before an abscess had begun on his chin. This had been preceded by an attack of enteritis, which had lasted several days, but had then ceased. Following the first abscess, the baby had developed a number of large and small abscesses in various parts of the body. They all appeared to be deep seated and to originate under the periosteum. The cultures first taken showed staphylococci, later in the course of the case the microbes were all of the short variety of streptococci. The infection was most marked at the upper and lower ends and inner surface of the right tibia, although deep seated in the calf were one or two abscesses, which probably originated from the posterior surface of the bone. The fibula seemed to be very slightly affected at any time during the whole course of the illness. On September 25, during a dressing, the entire tibia, from the epiphysis above to that below, was incidentally removed from the diseased leg. The knee and ankle joint were both involved in the infection. The leg was riddled with sinuses and at the same time a number of abscesses were being treated in various parts of the baby's anatomy. At one time the condition of the leg was so bad and the



child's exhaustion so marked that amputation to save his life was considered—but refused. A molded plaster of paris splint encircling the foot up to and above the thigh supported the leg, preventing deformity and possible injury to the fibula, and allowing of the various necessary dressings. An X-ray taken on November 25, two months after the removal of the bone, showed the outline of a new tibia extending from joint to joint. The bone could also be distinctly felt with the finger. The sinuses and abscesses about the leg healed very rapidly, and by December 25, aside from scars and one sinus at the lower epiphyseal junction the limb was quite normal in appearance. A skiagraph taken at this date showed a satisfactory tibia and fibia in proper position. The baby had a hard time of it with repeated infections, but had resistance enough to overcome them. He had abscesses all over his body for several years. They were opened and drained, and usually healed quickly and kindly. The periosteum of the skull was a favorite site for their origin, as was also that of the scapula and sternum. The last abscess was in August, 1911. It originated under the periosteum of the left patella, and healed quite rapidly within a few days after it was opened. Seen by me within the last few weeks the child is the picture of health, normal and robust in every respect excepting for the scars he bears and about a quarter inch shortening of the affected leg.

This patient had the best possible opportunity of treatment, and was able to command every possible means to his recovery which money or attention could provide. He is now about four and a half years old and practically since the beginning of his illness has never passed a night in a bedroom or indoors. His waking and sleeping hours are all spent in the open air. During the acute period of pus infection an autogenous vaccine was made and injections repeatedly given. There is of course no means of knowing what effect this had on his ultimate recovery. Naturally every use was made of our knowledge of the opsonic index, antibodies, vaccines, and the laws of resistance and immunity taught us by the most recent laboratory investigations. Certainly without such knowledge the question of amputation of the leg to save the child

would have been a more acute and serious matter than the result seems to have proved.

In a different field, but yet along practically the same lines, the laboratory work of the German physiologists, pathologists and chemists, with their striking results has been of great assistance in restoring diseased tissues to normal condition. Professor Erlich's laboratory researches and findings have been of tremendous value in the ordinary everyday surgical work. The use of neo-salvarsan, together with our knowledge of the complement, fixation, reaction, as a control test has in many cases produced some marvelous results. Some of these are illustrated in the following cases:

No. 1. Madame V. consulted me March 22, 1911, with the following history. She is 32 years of age and has been ill for five years. She is married, but has been separated from her husband for the past four years. Has been twice pregnant. Two miscarriages. She lost weight rather rapidly for the last year and a half. She was extremely pale, had pulse 110, slight elevation of temperature every afternoon, complained of pain in the rectum and left pelvic region, which began intermittently about eighteen months previous, but which was then pretty constant and at times very severe. On this account, and because of the difficulty of defecation she was unable to take nourishment except in very small quantities, and for the most part in fluid form. For the past few months she had a muco-bloody discharge from the rectum. Except for small particles, which were expelled from time to time with great pain, she was unable to have any movement of the bowels. She had been treated for cancer of the rectum by different specialists in this country and abroad, and complete excision had been advised. She was on her way to a hospital in a western city for operation, when she was sent to me by another physician for final opinion. Digital examination of the rectum caused a great deal of pain and disclosed about four inches above the anal opening a thick hard mass of tissue filling the caliber of the gut except for a small hole in the center through which only the thin end of an ordinary probe could be inserted. The examination was exceedingly painful, and most difficult both for the

patient and for the surgeon. No glands were felt in either groin, but in the left lower quadrant and extending down into the pelvis was a large irregular mass, oblong in shape, about four and a half by eight inches in dimensions, tender to pressure, and rising to the level of the umbilical line. Fearing that the lesion was cancer, but hoping that it might be specific, her blood was taken for a Wassermann test. Persistent questioning into her history revealed the fact that her husband, whom she had not seen in several years, had been treated for some blood condition of long duration, and she further remembered that within a few months after her marriage she had an abscess in the groin which had been opened by a surgeon. This was not a very satisfactory history, but within a few days the Wassermann report was returned as positive. An intramuscular salvarsan injection was given, followed by mixed treatment by mouth. The patient was taken to a sanitarium in order to be under the best possible conditions to relieve her emaciation and difficulty in defecation, and for the purpose of properly nourishing her as well as for the mechanical treatment of her stricture. The result of the treatment was not only remarkable, it was astounding. On the third day a small rectal bougie was passed through the stricture with considerable difficulty and each third day following larger and larger sizes were used and the stricture gradually dilated, until at the end of two weeks a rubber tube the size of a twenty-six French sound was passed into the sigmoid cavity and that portion of the gut washed out. By means of this washing and the movements of the bowels which had been slowly induced by mild cathartics and massage the large tumor in the pelvic region had satisfactorily disappeared, showing that it had been nothing but fecal impaction above the almost completely occluded rectum.

Early in May she was given another injection, intravenous this time. From that period on her gain was steady, and at the end of three months from the first injection her weight had increased thirty pounds. Her hemoglobin has increased from 37 per cent to 81 per cent, and her red blood cells from twelve hundred thousand to nearly four millions. Appetite had returned, she had well-formed bowel movements, and the mucopurulent discharge had



ceased. The patient went to Europe late in August having stopped treatment a few weeks before of her own wish. While in Paris, in September, multiple syphilitic ulcers developed, which were so extensive as to threaten her life. She was taken to a cure in Austria, where active antisyphilitic treatment was given by means of baths, unctions and mouth medicine, but no further injections of salvarsan or neosalvarsan. In the early spring of 1912 she returned here and is still under treatment and observation. Except for the pronounced rupial cicatrices extensively distributed over her skin her condition is quite satisfactory. There has not been at any time further trouble with the stricture. I regard her as a remarkable illustration of the value of salvarsan.

Another demonstration of recovery, or at least of the removal of all evidences of troublesome symptoms, rapidly, and to the great relief of the patient, is detailed briefly as follows:

Captain J. C., naval officer, 48 years old, consulted me about a month ago for an inflamed and discharging tumor involving his right shin, and a large and painful swelling at the upper end of his lower right arm. Examination of the leg showed a tumor several inches long connected with the left tibia. It was swollen, tender and painful, and toward its center were two sinuses leading into the bone and discharging considerable pus. The pain was much worse at night and the tumor had increased rapidly in the past few weeks. The swelling on the right arm was about half the size of an ordinary orange. It involved the upper third of the ulnar, was not inflamed, slightly tender, and was troublesome principally from its size and position. He gave a very definite history of initial lesion and secondaries twenty years ago. There had been no symptoms since that time until the swelling of the tibia about three months before. The osteomyelitis of the tibia was treated by an operation under general anæsthesia, during which as much as possible of the affected portion of the bone was removed by incision and curettage with the bone chisel and bone scoop. About two-fifths of the tibia was removed. The cavity remaining after this very thorough operation was extensive. It required a large quantity of iodoform gauze to fill it. The gauze packing was left in place for a week. The day fol-

lowing the operation he was given an intravenous injection of salvarsan, and ten days later a second injection. The diminution in size of the tumor in the arm began almost immediately, and was quite perceptible after 48 hours. Now at the end of three weeks, after the second injection, the tumor is almost on a level with the surrounding tissues, and only a slight elevation and irregular outline mark its former position. The enormous cavity in the tibia has almost completely filled in. The periosteal pains ceased in the first 24 hours, following the first injection, and have not returned. The patient is about his usual occupation and aside from a dressing over the rapidly healing tibial ulcer, is in a quite normal condition. This reads like fiction, but is nevertheless a fact. It is a sample of one of the not unusual antisypilitic therapy.

One more case, in which an untoward event very nearly occurred, may be of interest. It was during the early period of our knowledge of salvarsan, when we were not quite so familiar with its use as we are at present. The patient was a husky Greek laborer, 28 years old, who had what appeared to be a mixed sore; that is, he had an ulcerated lesion of considerable extent with profuse discharge and a well marked induration. He had well developed secondaries in the shape of a typical macular eruption and widely distributed glandular enlargements. An intravenous injection of the usual amount of salvarsan was given in the usual manner without trouble or difficulty of any kind. Within a few minutes after the withdrawal of the needle he had a severe chill and vomiting. His chills were repeated for several days and his vomiting kept up for several weeks. At the time of the chill he complained of severe pain in the right hypochondriac and epigastric regions. The pain lasted for several days. His temperature and pulse soon became elevated, and the vomit the following day contained blood; he had also a severe bloody diarrhœa. Nourishment was of course impossible, and the patient's condition became exceedingly serious. At this time, in the second week after the injection, he was a pitiable sight. One of his most striking symptoms was the extraordinary number of herpetic blebs covering his lips and face. He had as well, dry cracked tongue with sordes.

His temperature at different times ran as high as 105 and 106 degrees. Several times death seemed to be impending from exhaustion and anorexia. He eventually recovered, but it was weeks before he was able to leave his bed and his stay in the hospital extended into months. He had a positive Wassermann before the use of the salvarsan, a double positive in the third week of his illness, and just before he left the hospital the report was ative: so that in spite of the danger and suffering he went through he was relieved of his syphilitic symptoms. Out of several hundred cases of treatment by salvarsan and neosalvarsan this is the only one where the effects were not satisfactory, and in this case the ultimate result was eminently so.

I offer for your attention these few selected cases as evidence of startling, almost astounding recoveries which sometimes occur in our ordinary work. Certainly such reports as these are more worthy of promulgation for the benefit and encouragement of suffering humanity than the publication of the rather foolish newspaper descriptions of surgical procedures, such as the one cited earlier in this paper and so common in print.—*The American Practitioner*.



**Extracts from Home and Foreign Journals.**

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**SURGICAL**

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## SURGERY OF THE THYROID.

J. Berry is of the opinion that exophthalmic goiter is a disease of which the treatment, whenever possible, should be carried out jointly by the physician and surgeon. He ventures to ask whether the time has not arrived when physicians should recognize that they can do little or nothing for its actual cure, but that they can do much to get the patients into a proper condition for operation. On the other hand, the surgeon should realize the value of medical treatment as a preliminary to surgical interference, and should remember that there are stages of the disease during which the patient should be entirely in the physician's hands. It is common to hear of patients, who might be much benefited by operation, being kept indefinitely under medical treatment in out-patient departments, or intermittently in the medical wards, before a surgeon is even asked to see them, and when he is called in it is often to some desperately bad case on which he is expected to operate immediately as a last resort. In summing up our certain knowledge as to the dangers and advantages of the operative treatment of Grave's disease, the author believes that one may say that operations upon cases of exophthalmic goiter are more dangerous than similar operations for most other kinds of goiter, but that the dangers may, however, be greatly reduced by careful attention to details, especially in the selection of cases for operation, and in the choice of the time at which the operation should be performed, in the preliminary treatment of the patient, in the methods of operating, and in the after-treatment. That much benefit nearly always follows operation is undoubted, and that cure does sometimes follow as a direct result of the operation, especially in early and slight cases, there can be equally little doubt. Even in really bad cases, in which operation must involve serious risk, so much improvement often results that operation should not be too lightly put aside.—*Medical Record*.

## Editorial

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**PUBLISHER'S NOTICE**—The Journal is published in monthly numbers of 48 pages at \$1.00 a year, to be always paid in advance.

All bills for advertisements to be paid quarterly, after the first insertion of the quarter.

Business communications, remittances by mail, either by money order, draft, or registered letter, should be addressed to the Business manager, C. S. Briggs, M. D., corner Summer and Union Streets, Nashville, Tenn.

All communications for the Journal, books for review, exchanges, etc., should be addressed to the Editor.

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### FOUNDATION OF THE AMERICAN COLLEGE OF SURGEONS.

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A meeting of the organization committee, authorized and appointed at the Clinical Congress of Surgeons of North America, was held at the Willard Hotel, Washington, D. C., May 5, 1913. Dr. Edward Martin, of Philadelphia, acted as Chairman, and Dr. Franklin H. Martin, of Chicago, as Secretary. The object of the meeting was stated in the language of the following resolution bringing it into existence:

*"Resolved*, That this largest organization of surgeons on the American continent, the Clinical Congress of Surgeons of North America, shall assume the responsibility of standardizing surgery. This should be accomplished through representative committees and along the following lines: (1) It should formulate a minimum of requirements which should be possessed by any authorized graduate in Medicine, who is allowed to perform independently surgical operations in general surgery, or any of its specialties. (2) It should consider the desirability of listing the names of those men who desire to practice surgery, and who come under the authorized requirements. (3) It should seek a means of legalizing under national, colonial, state or provincial laws, a distinct degree supplementing the medical degree, which shall be conferred upon physicians possessing the requirements recognized by this law as necessary to be possessed by operating surgeons. (4) It should seek coöperation with the medical schools of the continent which have the right to confer the degree of M.D., under the present recognized standards, and urge these colleges to

confer the supplementary degree of surgeon on each of its graduates who have in addition to their medical course, fulfilled the necessary apprenticeship in surgical hospitals, operative laboratories and actual operative surgery. (5) It should authorize and popularize the use of this title by men upon whom it is conferred, and its use should especially be urged in all directories of physicians, in order that the laity as well as the medical man can distinguish between the men who have been authorized to practice surgery and those who have not."

This committee decided to commit the decision of the desirability of the method of organization, and the accomplishment of an organization which would fulfill the spirit of instruction of surgeons that could be gotten together. The results of the committee's efforts were that five hundred representative surgeons from all portions of the North American continent have consented to become founders of the organization under contemplation, and of this five hundred fully three hundred were present in Washington to fulfill their obligations. The Chairman stated that the object of the meeting was to formulate further and endorse the work that had been done by the subcommittee in regard to the standardization of surgery, for the benefit of the profession and the protection of the public. Everyone was in sympathy with the object. The following resolutions were adopted:

*"Resolved*, That the surgeons who were invited to become the Founders of this Corporation are hereby declared Fellows of the College of Surgeons, and shall receive their election by the Board of Regents without further formality.

*"Resolved*, That such other surgeons in the territorial dominion of the College, whose surgeonship can be unquestionably approved by the Committee on Credentials be at once, without the formality of an examination, recommended to and received by the Board of Regents as accredited Fellows of the College of Surgeons.

*"Resolved*, That members of the societies of surgeons and surgical specialties holding accredited positions in the federation of societies constituting the Congress of American Physicians and Surgeons, shall also be accepted as Fellows of the College of Sur-



geons without the usual formality required by the Board of Regents.

The following resolutions regarding the selection of Fellows were likewise adopted:

*"Resolved*, That the prospective Fellows of the College be divided, for the purpose of classification, into four groups to be designated A, B, C, and D classes, respectively. The A Class shall consist of the Founders of the College. The B Class shall consist of the members of the special surgical societies constituting the Congress of American Physicians and Surgeons, and one hundred each, nominated by an accredited committee, from the Surgical Section of the American Medical Association, from the Section of Obstetrics, Gynecology and Abdominal Surgery of the American Medical Association, from the General Surgical Section of the Clinical Congress of Surgeons of North America, from the Surgical Specialties of the Clinical Congress of North America, from the American Association of Obstetricians and Gynecologists from the Canadian Medical Association, from the Southern Surgical and Gynecological Association, and from the Western Surgical Association. The C Class shall consist of surgeons of prominence of ten years in practice of surgery or a surgical specialty, and who, in the opinion of the Committee on Credentials, are eligible for Fellowship in the College without formal examination. The D Class shall consist of surgeons who can not, in the opinion of the Board of Regents, be classified under A, B, or C divisions, and for whom the college must establish an examination or other evidence of acceptable qualifications.

*"Resolved*, That the Board of Regents through the Committee on Credentials limit the admission of Fellows to classes A, B, and C until the Board of Regents formulates a standard of requirements for Class D and reports the recommendations back to the Board of Governors for approval at a meeting to be called by the Board of Regents at the time of the next meeting in Chicago, November, 1913."

The following officers were elected: President, Dr. J. M. T. Finney, Baltimore, Md.; Vice President, Dr. Rudolph Matas,

New Orleans, La.; General Secretary, Dr. Franklin H. Martin, Chicago, Ill.; Treasurer, Dr. A. J. Ochsner, Chicago, Ill.

Board of Regents: Dr. George E. Brewer, New York City; Dr. George E. Armstrong, Montreal, Can.; Dr. John B. Murphy, Chicago, Ill.; Dr. Edward Martin, Philadelphia, Pa.; Dr. F. J. Cotton, Boston, Mass.; Dr. Herbert A. Bruce, Toronto, Ontario; Surgeon-General W. K. Stokes of the Navy; Dr. William D. Haggard, Nashville, Tenn.; Dr. George W. Crile, Cleveland, Ohio; Dr. McKechnie, Vancouver; Dr. Charles H. Mayo, Rochester, Minn., and Dr. Harry Sherman, San Francisco, Cal.

The above article speaks for itself. It is a move in the right direction instituted by surgeons of note from all sections of this country, and should receive the unqualified approval of all doctors regardless of what particular specialty they claim.

We are in urgent need of some such classification in order to protect the public and the good name of that particular brand of practice designated surgery.

Throughout this country the indiscriminate practice of surgery is spreading so fast that the public is already threatened with the time when any recent graduate can declare himself a surgical specialist and do operations which older, more experienced surgeons consider dangerous in the most skillful hands. Nowadays every medical student is asked by the laity "what specialty are you going to take up," many, many times before he graduates. Most students answer surgery, because to the student this branch is more spectacular and attractive, and having made the answer so many times the student finally comes to believe he is a surgeon and the laity think so too, because the average lay mind believes the student commences to specialize the first day he enters the medical school. But the question is, not who wants to be a surgeon, but who really is worthy of such a name. This is the question the proposed American College of Surgeons is to settle.

Our own opinion is that all graduates must henceforth report

for examination several years after graduation in order to prove their ability to do surgery.

A thorough study must be made of each case, otherwise this proposed College will degenerate into a political organization with everything in favor of the man with a pull. Provision must be made whereby anyone holding a medical degree from a college belonging to the American Association of Medical Colleges can always secure an appointment in some hospital approved by the Board of Regents and such appointment must be based on the passage of written, oral and *practical* examinations so conducted that examiners can not know examined and pull can play no part. We all know that at present many of our best hospitals stand with portals closed to those without the necessary pull, regardless of how well qualified they may be to hold an interneship. The proposed College should see that there is room for all in the hospitals they approve, for otherwise many men will be prevented from choosing their specialty, should they decide to take up surgery after doing general work for five or ten years. Special optional courses should be inserted in the curriculum of the various medical schools, and the schools must likewise open their doors for a nominal charge to their graduates in order that each and all may have a chance to study surgical anatomy and pathology and other branches relating to surgery.

Unless provisions similar to the above and others, too, are made, the election of men to this honorable body can not be fair to all.

We ourselves not only approve of such a body, if all have equal chances of entering providing they are worthy, but we feel that other specialties should adopt similar measures. In this way we could eliminate the pseudo specialists and at the same time bring the general practitioner back to where he once stood—at the head of the profession. For the man who passes examinations—written, oral and practical—for all the various specialties, where each



one embraces as much as it does today, surely deserves the right to practice all, and surely should be recognized as a leader rather than looked at askance as he is in some localities today.

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PRELIMINARY PROGRAM AMERICAN PROCTOLOGIC SOCIETY.

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Fifteenth Annual Meeting. Minneapolis, Minn.  
June 16 and 17, 1913.

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Headquarters and Place of Meeting, Hotel Radisson, Seventh  
Street, near Nicolet Avenue.

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The Profession is Cordially Invited to Attend all Meetings.

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PROGRAM.

Commencing Monday, June 16, 1913.

Executive Council meets at 11 a.m.

First regular session at 2 p.m.

Annual Address of the President. Subject: Proctology and  
Procto-Enterology. Louis J. Hirschman, Detroit, Mich.

Memoir of James P. Tuttle, New York City, N. Y.

Joseph M. Matthews, Louisville, Ky.

Memoir of Leon Straus, St. Louis, Mo.

Joseph M. Matthews, Louisville, Ky.

PAPERS.

1. A Review of Proctologic Literature for 1912.—Samuel T. Earle, Baltimore, Md.
2. A Method of Operating on Fistula Without Cutting Muscular Tissue.—Rollin H. Barnes, St. Louis, Mo.
3. Report of a Case of Fecal Tumor Associated with Hirschsprung's Disease.—Alois B. Graham, Indianapolis, Ind.
4. A Further Consideration of Sir Charles Ball's Operation on Internal Hemorrhoids—Alfred J. Zobel, San Francisco, Cal.
5. Deductions Based Upon an Analysis of Four Thousand Consecutive Rectal Cases.—T. Chittenden Hill, Boston, Mass.

6. Personal Reminiscences Upon the Subject of Proctology.—Jos. M. Matthews, Louisville, Ky.
7. Plastic Operations in Anal Stricture.—Wm. M. Beach, Pittsburgh, Pa.
8. Injection of Hemorrhoids.—Lewis H. Adler, Jr., Philadelphia, Pa.
9. Anal Sphincters.—Ralph W. Jackson, Fall River, Mass.
10. Further Observations Upon the Surgical Anatomy and Pathology of the Large Bowel with Radiographic Illustrations.—Granville S. Hanes, Louisville, Ky.
11. The Ano Rectal Line; Its Clinical Significance.—Collier F. Martin, Philadelphia, Pa.
12. Intestinal Parasitism in the South: Modes of Distribution: A National Problem.—John L. Jelks, Memphis, Tenn.
14. Some Preliminary Observations of Gastro-Enteric Motility.—Jerome M. Lynch, New York City, N. Y.
14. Ano-rectal Fibrosis: A New Disease. J. Coles Brick, Philadelphia, Pa.
15. Some New Diagnostic Means of Investigating Diseases of the Gastro-Intestinal Tract.—Thos. Chas. Martin, Washington, D. C.
16. Carcinoma of the Rectum.—J. Rawson Pennington, Chicago, Illinois.
17. Venereal Affections of the Anus and Rectum.—Edw. A. Hamilton, Columbus, Ohio.
18. Further Observations on the Treatment of Pruritus Ani by Autogenous Vaccines.—Dwight H. Murray, Syracuse, N.Y.
19. Diarrhea: Its Causes and Treatment.—George B. Evans, Dayton, Ohio
20. Ulcerations of the Rectum and their Treatment.—Horace Heath, Denver, Colo.

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MARBLE MAY CRUMBLE, BUT LIVING-STONE, NEVER.

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David Livingstone, medical missionary, explorer, was born in Scotland March 19, 1813, and died in Central Africa, May 1, 1873. His body rests after much tribulation, in Westminster Ab-

bey. During life he opened up the Dark Continent to medicine, civilization and to Christianity. Not the least of his good works were his efforts toward the crushing out of the slave trade. Medical men as well as others do well to honor his memory. When a boy of 10 he worked in a cotton mill and learned Latin with his book fixed so that he could study it while walking to and fro at his work. He worked from 6 a.m. to 8 p.m., and at night studied at home. As a boy he climbed to a higher point in the ruins of Bothwell Castle than any other and carved his name there. In later life he did some tall climbing in Africa and left his name carved there. He enjoyed an immense practice in Central Africa, patients walking 130 miles for his advice. There was no question of fee splitting. There were no fees to split. The writer well remembers as a boy the story of Stanley's discovery of the Great Discoverer, and how proud he was of America's part therein. Sadly pitiful was the story of his death in the secluded swamps of Central Africa. The happy incidents surrounding his death were the devotion, fidelity and resourcefulness of his native servants at that trying time. They followed instructions—buried his heart under a tree at the place of his death—and carried his body to Zanzibar under great difficulties and dangers, whence it was taken to England. There are many memorials of Livingstone in England and Africa, one of the most appropriate being the Livingstone Dispensary in Edinburgh.

Places three in Pantheon!

Lincoln, Livingstone, Washington.

—E. S. McK.

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#### INTERNATIONAL CONGRESS ON SCHOOL HYGIENE.

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Office of the Secretary-General College of the City of New York,  
New York City, April 4, 1913.

*To the Editor, Nashville Journal of Medicine and Surgery, Nashville, Tenn.*

DEAR SIR.—May we not depend upon your editorial aid at this time in contributing to the success of the fourth International Congress on School Hygiene, which is to be held in Buffalo, Au-



gust 25-30 inclusive, under the patronage of the Hónorable Woodrow Wilson?

We desire to bring together a record number of men and women interested in improving the health and efficiency of school children; moreover, to make this Congress—the first of its kind ever held in America—one of direct benefit to each individual community. Such a thing is made possible only the hearty co-operation of editors in their various publications.

There is now being arranged a comprehensive program of papers and discussions covering the entire field of school hygiene. There will be scientific exhibits, representing the best that is being done in school hygiene, as well as commercial exhibits of practical and educational value to school people. Nor will the entertainment of the delegates in any way be a minor feature. Plans are being made for a series of social events, including receptions and a grand ball, a pageant in the park, and excursion trips to the great industrial plants of Buffalo, as well as to the wonders of Niagara Falls and the Rapids. Buffalo itself has just taken up a collection of \$40,000 for the purpose of covering the expense of the Congress.

Delegates will attend from all the leading nations, from every college and university of note in this country, and from various other educational, scientific, medical and hygienic institutions and organizations. The Congress is further open to all persons interested in school hygiene. Membership may be secured on the payment of a five dollar fee. Applications should be sent to Dr. Thomas A. Storey, College of the City of New York, New York City.

It is greatly desired to secure large membership of the Congress, and to this end, may we not count upon you in spreading the news of the Congress and in calling attention to the benefits following the presence of all those actively engaged in promoting the welfare of the child, the school and the community?

The man of tomorrow depends upon the child of today, and the child of today, roughly speaking, spends half of his waking hours under the influence of school conditions. Are you interested in making these conditions what they ought to be? If you are,

give this Congress publicity. That is one way in which you can help.

Cordially yours,

THOMAS A. STORY.

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PHYSICIAN (Male).

June 4, 1913.

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The United States Civil Service Commission announces an open competitive examination for physicians, for men only, on June 4, 1913, at the places mentioned in the list printed hereon. From the register of eligibles resulting from this examination certification will be made to fill vacancies in this position as they may occur in different branches of the service, unless it is found to be in the interest of the service to fill any vacancy by reinstatement, transfer, or promotion.

As a result of this examination it is expected to immediately make certification for filling vacancies in the Isthmian Canal Service at entrance salaries of \$1,800 per annum, and a vacancy in the position of acting assistant surgeon in the Public Health Service at Jacksonville, Fla., at a salary of \$500 per annum. Appointees to the position of acting assistant surgeon in the Public Health Service are required to devote only part of their time to the Government service.

The scope and character of the examination, as well as the requirements for the different branches of the service and salaries of each, are contained in section 192 of the Manual of Examinations for the Spring of 1913.

This examination is open to all men who are citizens of or owe allegiance to the United States, and who meet the requirements.

One application, Form 1312, is sufficient for all branches of the service except the Philippine, which requires Form B. I. A. 2.

Persons who meet the requirements and desire this examination should at once apply for either Form 1312 or B. I. A. 2 and a copy of the Manual of Examinations for the Spring of 1913 to the United States Civil Service Commission, Washington, D. C.; the secretary of the board of examiners, postoffice, Boston, Mass.; Philadelphia, Pa.; Atlanta, Ga.; Cincinnati, Ohio; Chi-

cago, Ill.; St. Paul, Minn.; Seattle, Wash.; San Francisco, Cal.; customhouse, New York, N. Y.; New Orleans, La.; Honolulu; old customhouse, St. Louis, Mo., or to the chairman of the Porto Rican Civil Service Commission, San Juan, P. R. No application will be accepted unless properly executed and filed with the Commission at Washington in time to arrange for the examination at the place selected by the applicant. In applying for this examination the exact title as given at the head of this announcement should be used.

Issued May 2, 1913.

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#### NOTABLE FEATURES ON THE PROGRAM OF HYGIENE CONGRESS.

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The Fourth International Congress on School Hygiene, and the first to be held in America, at Buffalo, August 25-30, according to an announcement of the executive committee, will be by far the most elaborate effort yet made in this country toward getting the problem of school hygiene before the world. The first International Congress was held at Nuremberg in 1904, the second at London in 1907, the third at Paris in 1910.

The objects of the Buffalo Congress are:

1. To bring together men and women interested in the health of school children.
2. To organize a program of papers and discussions covering the field of school hygiene.
3. To assemble a school exhibit representing the best that is being done in school hygiene.
4. To secure a commercial exhibit of practical and educational value to school people.
5. To publish the proceedings of this Congress and distribute them to each member.

In addition there is a plan on foot to effect a permanent organization for the purpose of carrying out school hygiene reforms in all the individual communities in this country, if not all over the world.

One of the interesting features of the Congress will be the presence of delegates representing the community interest in



school hygiene, including those appointed by mayors and governors, by women's clubs, by school boards, boards of health, by mothers' congresses and charity organization societies and boards of trade. Their help is being solicited with a view of organizing the community in a campaign of school hygiene reform.

The program committee announces a program of two hundred fifty papers and fifteen symposiums, taking up hygiene from the following points of view:

I.—The hygiene of school building, grounds material and upkeep.

II.—The hygiene of school administration and schedule.

III.—Medical, hygienic and sanitary supervision in schools.

The contributors to the program make up a notable list of speakers—college presidents and professors; state city and county commissioners of education; teachers and superintendents of public schools, medical college professors; state, county and city health officers; physicians in private practice; engineers and architects.

Special discussions are being arranged on the following subjects:

"School Feeding": arranged by the Committee on School Feeding of the American Home Economics Society.

"Oral Hygiene": arranged by National Mouth Hygiene Association.

"Sex Hygiene": arranged by the American Federation of Sex Hygiene.

"Conservation of Vision in School Children": arranged by the Society for the Prevention of Blindness.

"Health Supervision of University Students": arranged by Dr. Mazyck P. Ravenel, University of Wisconsin.

"School Illumination": arranged by the Society of Illuminating Engineers.

"Relation Between Physical Education and School Hygiene": arranged by the American Physical Education Association.

"Tuberculosis Among School Children": arranged by the Society for the Prevention of Tuberculosis.

"Physical Education and College Hygiene": arranged by the Society of Directors of Physical Education in Colleges.

"The Binet-Simon Test": arranged by Professor Terman, Stanford University.

"The Mentally Defective Child": arranged by Dr. Henry H. Goddard, Vineland, N. J.

Various citizens committees of Buffalo are arranging an elaborate entertainment for the benefit of visiting delegates. There will be receptions and a grand ball, a pageant of school children, and excursion trips to the great industrial plants of Buffalo, and to the scenic wonder of Niagara Falls. The Boy Scouts will act as official guides.

Delegates will attend from every college and university of note in this country, from other leading educational and hygienic institutions and organizations, and from every country in which an active interest is being shown in the welfare of school children, which includes all the leading nations of the world.

The Congress is open to all persons interested in school hygiene upon the payment of a fee of five dollars. Application of membership should be sent to Dr. Thomas A. Storey, College of the City of New York, New York City.

President Wilson has accepted the honorary office of Patron of the Congress. The President of the Congress is Mr. Charles W. Eliot of Harvard University. The Vice Presidents are Dr. William H. Welch, of John Hopkins University, and Dr. Henry P. Walcott, President of the recent International Congress on School Hygiene and Demography, and chairman of the Massachusetts State Board of Health.

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#### MAGNESIUM SULPHATE AS A LOCAL ANAESTHETIC.

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The *Monthly Cyclopædia* cites Wiki's experiments on this question. The method used was that previously employed by Moukhtar for other purposes, viz., injection of a solution of the local anæsthetic agent to be tested into the skin adjoining the spinal column in guinea pigs. The presence of any degree of local anæsthesia is shown by the diminution or lack of response of the

skin muscles when the overlying cutaneous area is touched—normally a very easily reflex in these animals.

It was found that, while magnesium sulphate solutions of 3 per cent to 5 per cent strength generally produced only an hypæsthesia, those of 7 per cent to 12 per cent strength induced a well-marked anæsthesia, rarely exceeding eight minutes in duration. Fifteen to 25 per cent solutions caused a complete local anæsthesia lasting about one-half hour, after which local sensibility very gradually returned. A saturated solution, containing 0.62 grams of the salt in each cubic centimeter, produced complete anæsthesia, the duration of which generally exceeded one hour.

In order to prove the fact that the effects witnessed were not dependent upon the osmotic tension of the solutions used, comparative tests were made with solutions of magnesium sulphate, sodium sulphate and sodium chloride, shown to be isotonic by cryoscopy. It was found that, whereas, solutions of the last two salts approximately isotonic with the body-fluids had no anæsthetic power, magnesium sulphate solutions of the same molecular concentration (about 7 per cent) produced a distinct local anæsthesia. With stronger solutions the freezing point of which was below  $-2^{\circ}$ , sodium sulphate and chloride did induce anæsthesia, but this was always of much shorter duration, and usually less complete, than that caused by magnesium sulphate. A solution of magnesium chloride of 5 per cent strength was found to produce an anæsthesia of short duration; 7 per cent to 10 per cent solutions produced insensibility lasting somewhat over half an hour.—*The Medical Brief.*

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At a meeting of Alienists and Neurologists of the United States, held in Chicago, April 17, 18, 19, 1913, under the auspices of the West Side Branch of the Chicago Medical Society and the Chicago Medical Society, a resolution was adopted to hold a second meeting in Chicago, in 1913, and a committee to be appointed to arrange for such a meeting. In accordance with the resolution a committee has been appointed, viz.:

Dr. H. N. Hoyer, Chicago, Chairman; Dr. L. H. Mettler, Chicago; Dr. W. A. Evans, Chicago; Dr. A. M. Corwin, Chicago;



Dr. W. J. Butler, Chicago; Dr. Peter Rassoe, Chicago; Dr. Wm. L. Noble, Chicago; Dr. W. T. Mefford, Chicago, Secretary; Dr. Bayard Holmes, Chicago; Dr. Jacob Frank, Chicago; Dr. P. J. H. Farrell, Chicago; Dr. Frank P. Norbury, Springfield, Ill.; Dr. W. L. Athon, Anna, Ill.; Dr. Sidney D. Wilgus, Kankakee, Ill.; Dr. H. B. Carriel, Jacksonville, Ill.; Dr. H. G. Hardt, Lincoln, Ill.; Dr. C. H. Anderson, Menard, Ill.; Dr. H. C. A. Chester, Menhard, Ill.; Dr. E. Z. Leviten, Peoria, Ill.; Dr. Wm. A. Crooks, Watertown, Ill.; Dr. H. Douglass Singer, Kankakee, Ill.; Dr. W. F. Lorenz, Mendota, Wis.; Dr. H. A. Tomlinson, Wilmar, Minn.; Dr. H. M. Cary, Spring City, Pa.; Dr. Theo. Diller, Pittsburg, Pa.; Dr. John Punton, Kansas City, Mo.; Dr. Henry A. Cotton, Trenton, N. J.; Dr. K. S. West, Cleveland, Ohio; Dr. W. B. Throckmorton, Cherokee, Iowa; Dr. Charles Bernstein, Some, N. Y.; Dr. Albert E. Sterne, Indianapolis, Ind.; Dr. Chas. Read, Kankakee, Ill.

W. F. MEFFORD, *Chairman.*

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DR. E. S. McKEE.

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DEAR DOCTOR.—I intend to leave the last of May for North Cape Norway and return to England to attend the British Medical Association at Brighton July 22 to 25, the International Medical Congress at London, August 6 to 12 and the British Association for the Advancement of Science, at Birmingham, September 10 to 16. I will try to send you some items of interest for your Journal when I can find time. I attended the International Medical Congress when it met before in London in 1881. There were four doctors from Cincinnati at that Congress and I am the only one still alive. I also attended the Congress at Washington in 1887 and at Paris in 1900.

I remain yours very truly.

May 13, 1913.

E. S. McKEE.

## Publisher's Department

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### "CHASING THE CURE"

At Star Ranch In-the-Pines Sanatorium, Colorado Springs, Colo.

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During a recent journey through the state of Colorado, I remained for some time in the mountain city of Colorado Springs so that I could visit the many attractive places in that vicinity. The gorgeous scenery on the Cripple Creek Trip and in the Garden of the Gods is so magnificent that it is beyond the human imagination, but I must confess that my visit to Star Ranch Sanatorium afforded me greater pleasure than any of my other trips in Colorado.

The principal attraction at Star Ranch is its ideal location. The institution is located five and three-quarter miles south of Colorado Springs on the slope of Cheyenne Mountain. A perfect automobile service is conducted by Star Ranch, and its elegantly equipped motor-cars carry patients swiftly and smoothly away from the dust, smoke and noise of Colorado Springs proper. Within twenty minutes they breathe pure ozone laden with the delightful fragrance of pines, and the melody of songbirds takes the place of harsh city noises; for the patients have arrived at Star Ranch Sanatorium, located in the heart of the pines. It was a pleasant surprise to find such a delightful spot in the woods only a few minutes ride from the dusty streets of a city.

The location of a sanatorium, in my opinion, has a marked effect upon the mental attitude of patients, therefore, pretty surroundings are certain to hasten the recovery of health. Unquestionably Star Ranch has one of the most beautiful situations in the country. Mere words are incapable of expressing the beauty of the surrounding scenery. About two miles west of Star Ranch may be seen a portion of the backbone of the continent—the Rocky Mountains—the crest of which stands out clearly against the turquoise sky. The northern end of Star Ranch is protected from cold winds and storms by a thick growth of tall pines. On the south and east lies a great, broad plain, several

hundred feet lower than Star Ranch, dotted with a number of pretty lakes that glisten as jewels on the breast of Mother Nature. It is impossible to comprehend the number of miles which intervene between Star Ranch and the far distant horizon. Many hundred miles is a safe estimate. A person will not easily forget this wonderful view as there are few like it in the country. The imagination becomes active when human eyes gaze out across this vast stretch of land to the place where sky and earth seem to meet. From sunrise to sunset each day the plain presents a great variety of beautiful colors occasioned by the sun's rays and the passing of feathery clouds. The plain seems to undergo a continual transformation from dawn until twilight, and seldom presents the same appearance twice in a day. There are numerous trails winding up the sunlit mountain side and through shady ravines. The beautiful flora of the region is beyond comparison.

The main building at Star Ranch is an attractive structure, containing eighteen rooms, all of which have private sleeping porches. The rooms are heated by a hot water radiator system. Electric bells are installed in every room. The bath rooms and lavatories are modern in every way. The living room presents a splendid appearance and affords all the comforts of home. The dining room is attractively arranged, and it may be truthfully said that the excellent reputation of Star Ranch is founded on its inimitable table service. An outdoor dining room, having a southern exposure, is also in use during pleasant weather. This affords a refreshing breeze laden with the scent of pines and a glorious view of the plain. These acts as agreeable appetizers.

A number of cottages are scattered about among the pines and oaks a short distance from the main building. A cozy room, with windows, occupies the northern end of each cottage. The room is well furnished. A door leads from this room to a large sleeping porch, which occupies the southern portion of each cottage. All of the sleeping porches are open on three sides—south, east and west—and heavy canvas curtains are arranged so that any side may be closed completely as protection from storms. The open sides are also covered with a fine wire netting to prevent the entrance of insects. During cold weather an attendant



starts a fire early in the morning in the coal stoves of the inner rooms, so that the patients will have a warm room in which to dress after leaving their sleeping porches.

A competent physician, who has made a specialty of tuberculosis, is in attendance. Excellent nurses are also present at all times. I noticed that patients remained out of doors from eighteen to twenty hours out of the twenty-four. Those who were not confined to bed during the day "chased" in reclining chairs on the large veranda of the main building, which has southern exposure. Graduated exercise is allowed in some cases. Between 2 p.m. and 4 p.m. is rest hour, during which all of the patients retire, and silence prevails. Tuberculin and mixed vaccines are used in suitable and selected cases only. Pneumothorax is practiced in favorable cases, and I met several patients at Star Ranch who owed all to this treatment. Close personal supervision is given each patient, and the management of Star Ranch certainly does everything possible to hasten the recovery of their patients. The physician gives a monthly examination of all patients. An abundance of fresh food of all kinds is nicely served at Star Ranch and aids in restoring health and strength to the invalid. Lunches are served between regular meals. Pure, cold water, is piped to the sanatorium from springs in the mountains.

The glorious climate of Colorado is unsurpassed for the treatment of all forms of tuberculosis, as it is free from the severe rigors of winter and the prostration of summer to be found in the lower altitudes, thus permitting an out-of-door life throughout the year.

A very essential part of that essential factor—climate—is the altitude. In a low altitude persons can not have the same number of pulse beats a minute, the same number of breaths of pure oxygen, the same amount of energy pumped into them as in an altitude above 3,000 feet. Star Ranch has an altitude of 6,500 feet, which assures increased energy, a voracious appetite and buoyant spirits. There is an ozone in the air at this delightful spot which tones persons up and dispels their most cherished glooms. Patients soon recuperate under such favorable conditions as I found during my sojourn at Star Ranch.

A cheerful mental atmosphere is maintained at Star Ranch, and I found the patients to be a very cheerful gathering who made me feel very much at home. A well stocked library is at the disposal of the patients. There is a fine croquet court in front of the main building, which affords pleasure to the patients who are permitted to exercise. Motoring, driving and many forms of recreation are enjoyed by the patients when their condition warrants the approval by the physician.

The advantages of sanatorium treatment in tuberculosis are becoming more generally recognized. Patients at Star Ranch are at all times under strict medical supervision; they are advised in all details pertaining to their mode of life as regards rest, exercise, diet, etc. No general rules of treatment are applied to all, but on the contrary, each and every patient is advised, treated and cared for according to the special indications which his case presents.

I have always taken a great interest in sanatoria and I never fail to inspect such institutions thoroughly as I travel about through the various states. It may, perhaps, be a hobby, but my tours of inspection through so many sanatoris have enabled me to become an excellent judge of such institutions, and, without prejudice, I can say that Star Ranch Sanatorium is unsurpassed by any other in the country.

The management of Star Ranch is always pleased to show visitors about the sanatorium, and I heartily recommend that institution to all who may be interested in combating the White Plague

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#### THE NON-SURGICAL TREATMENT OF HEMORRHIDES.

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In the successful non-surgical treatment of hemorrhides, two important factors are to be kept in mind. First, the employment of such dietary and medicinal agents as will help remove the cause, and secondly, a local application that will reduce the congestion, relieve pain and if possible lessen the size of the tumor.

In just such cases Glyco-Thymoline has a wide field of useful application. A full strength solution brought in contact with external piles relieves at once by virtue of its anæsthetic property:

and by producing exosmosis, rapidly empties the piles by causing an exudation of serum, and at the same time by stimulating the capillaries to increased activity it relieves the engorgement.

For internal piles: First, cleanse the rectum with a douche of an ounce of Glyco-Thymoline to a pint of warm water and then by means of a hard rubber syringe, inject from half to an ounce of full strength solution, which is to be retained. This treatment is usually successful in giving prompt relief.



NITROUS OXIDE-OXYGEN ANAESTHESIA DURING CONFINEMENT  
AND FETAL RESUSCITATION BY MEANS OF OXYGEN  
INSUFFLATION OF THE LUNGS.

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I was asked by Dr. Rothenberg to administer ether to Mrs. S., aged 38, for a few moments so as to enable him to insert a bag into the cervical canal, his intention being to allow the patient to recover from the anæsthetic and subsequently to have her anæsthesized again and deliver by forceps. Having in mind the danger of two ether anæsthetics in such close succession I suggested that she be given nitrous-oxide-oxygen first and ether subsequently if necessary. After the anæsthesia was started Dr. Rothenberg saw that he could easily make a manual dilatation, which he proceeded to do, and then he quickly finished with the forceps, the nitrous-oxide-oxygen anæsthesia being continued throughout the whole operation.

Before delivery it was thought that the child was dead, as the fetal heart could not be heard, and when the child was born, although the feeble pulse could be felt, the child could not be made to breathe even with artificial respiration and mouth to mouth inflation of the lungs. There being by this time no further need of the anæsthesia for the mother I transferred the mask to the baby's face after turning off the gas, turned on the oxygen, held down the expiratory valve of the mask and proceeded to distend the baby's lungs several times with pure oxygen. The baby's color changed almost immediately from a very dark blue to a fiery red, and it soon started to breathe and continued to do so. In this connection I wish to state that the mother's color was good throughout the entire delivery. There was at no time the slightest suggestion of cyanosis. Her pulse was 120 before the anæsthesia was started and at no time, either during or subsequent to the delivery did her pulse go above this figure. She was given no morphia before the anæsthesia was started and there were no after-effects of any kind.—*The Lancet-Clinic.*

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# NASHVILLE JOURNAL — OF — MEDICINE AND SURGERY

CHARLES S. BRIGGS, A. M., M. D., Editor

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## Original Communications

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### DEFECTIVE VISION FROM ALCOHOL — AN ACTIVE CAUSE OF ACCIDENTS.

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BY T. D. CROTHERS, M.D.,  
Superintendent Walnut Lodge Hospital, Hartford, Conn.

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It has been known for a long time that a certain percentage of accidents are due directly to the mental condition of the person responsible, and when this condition is due to alcohol the causation is very clear.

An analysis of the causes of accidents on railroads and with motor cars brings out the startling fact that in over 50 per cent of these cases, alcohol is the responsible cause. One authority traced 200 accidents, occurring with motor cars, a large part of which attended with fatality, to the use of alcohol just before the accident. In most of these cases the drivers were not intoxicated, or supposed to be under the influence of spirits.

Many of these cases are illustrated in the following: The driver supposed to be a temperate man, after two glasses of spirits, failed to see the red lights of danger on the bridge, and plunged down into the stream below. Another driver, after taking a single glass of brandy, tried to cross the track before an approaching train and was killed. In another accident, a man supposed to be temperate, complained of cold and took some whiskey to relieve him, and a half hour later he went around a curve at high speed and down an embankment. These are very



common incidents and can be duplicated in almost every section of the country.

Railroad accidents where the engineer fails to recognize the danger signals or forgets to obey orders, and permits the train to run at high speed over dangerous parts of the road, and in many other ways, fails to observe the exact requirements and the ordinary cautions called for, in the last analysis, is referred to the use of alcohol and the supposed bewildered condition preceding the disaster.

Recently the fact has come to notice that defective vision, due specifically to alcohol, is a far more frequent cause of carelessness and disaster than any other condition.

This is seen in persons who are supposed to be temperate and who are not recognized as drinking men, or are even known to take spirits, except at long intervals. Men, whose eyesight is supposed to be normal, suddenly develop temporary defects from the use of spirits, and later these functional disturbances pass away.

A railroad engineer who had been repeatedly examined and was found to have good sight, showed a surprising defect in not seeing the red lights of warning, and not heeding the danger signal that was against him. This occurred on several occasions in the course of a year. At other times he seemed normal and recognized the signals naturally. Inquiry was made and it was found that on the return trip of a long journey he had taken spirits for weariness and fatigue, and for the next two hours his eye-sight was seriously affected. His color sense was destroyed or so dimmed as to be unrecognized. He stopped the train on several occasions, thinking an obstruction was before him. The inference was clear that alcohol had disturbed the sight and that he was unable to recognize the signals for some little time and until the effects of the spirits wore off.

In another case a tower man showed very startling confusion in the removal of the switches and the display of signals. Several slight accidents happened. It was finally determined that he had taken a glass of spirits, although he was not a drinking man. Not infrequently gate men and persons operating

switches make mistakes which are traceable to some unknown conditions of mind and eyesight. Later it is found that they had been drinking.

Recently a gateman who had spent a half an hour in a nearby saloon permitted a funeral procession to cross the track at the time for a fast express. One carriage load of people were destroyed and a most serious accident followed. The gateman disappeared, but the causes were evidently an alcoholized brain which failed to remember or reason of the danger.

The foreman of a bridge construction company, after a dinner at which spirits was taken, neglected to use the ordinary precautions of fastening the rails to permit the safe crossing of a train. As a result a very serious accident followed in which several cars were wrecked and one or two persons killed.

The railroad companies have a great variety of facts pointing to alcohol as an active cause, which are not made public, and in fact are concealed to a large extent. From the train dispatcher down to the gateman, the entire transportation service of the great trunk lines, the number of accidents due to spirits alone, far exceeds that of any other one cause.

Defects of vision, defects of memory, failures to reason promptly and wisely, bad judgment and so on—all pronounced injuries and departures from the normal that are due to alcohol—are the direct causes of the terrible fatalities and accidents so common.

In a study of the history of a vast number of these accidents, it is found that in the course of events a certain number of accidents will occur. There are due to unforeseen conditions, of surroundings and of mental and physical health and efforts to adjust oneself to these conditions. In the course of years this percentage remains about the same; that is, a certain number of farmers, mechanics, railroad men and men in all vocations of life, will be injured and die from unforeseen causes and accidents. The effort of preventive medicine is to eliminate and diminish this casualty rate to the lowest ebb.

In a study of these conditions, alcohol comes in as a most prominent factor. Formally, when alcohol was only recognized

as a stimulant and tonic, it was not considered as influencing casualties of human life. Now with a larger view of the anæsthetic quality of alcohol, it is found to be the most prominent factor in precipitating disease and death.

In a more accurate study of the casualties, the failures of responsible persons are not traceable to excessive use of spirits, only in rare instances. The gatetender, the switchman or the towerman may be apparently bewildered by spirits, but he is not permitted to continue his work in this condition.

The peril from his mental condition is recognized. It is the man who is not intoxicated, who may not have drank one or two glasses and apparently seems in no way worse or different from his use of spirits. His sudden disabilities entirely unforeseen are the direct cause of the casualty which follows. The spirits even in small quantities have covered up his real condition and given him a false estimate of his ability and a certain recklessness of conduct that he was not aware of.

Everything seems to be exact, correct and of the highest efficiency to him. Only later, when this delusion passes away, does he recognize his real condition. The man in the motor car has lost his caution and good judgment. All his senses are lowered, some of them very sharply dimmed. Thus his sight and hearing are defective. Other senses suffer in the same way, and what seems to him exact and real is the very opposite. The narrow place in the road seems wide, with abundant room. The steep precipice on the side of the road has no peril to him. The speed of the machine is under his perfect control and his appreciation of danger is diminished to a minimum. What would seem to be a risk and danger to others is insignificant to him. This may all come from a very small amount of spirits, and may not be apparent to the observer.

These are distinct evidences of favoring conditions for accidents which are sure to follow.

The engineer suffering from a sense of fatigue and weariness reasons that the disappearance of these symptoms from a glass of spirits is evidence of his former alertness of mind and senses,



and when the effects wear off and more spirits are taken, the delusion of strength becomes more and more fixed in his mind.

The towerman has no doubts or hesitancy about the signals and his duty. The telegraph operator is equally certain that he is using all the capacity he possesses. In reality he is diminishing and disturbing the very power he depends upon.

If the exact physiological effects of alcohol on the brain were recognized and known, there would be no spirits taken and the accidents which follow would be diminished and referred to other causes. The delusion that alcohol is a stimulant and tonic explains its frequent use by men in responsible positions who, with a larger knowledge, would not dare to use it.

The anæsthesia of alcohol is a very uncertain quality and may concentrate on any one of the senses or in some part of the brain, producing effects that are not understood by the person.

The flushed face after a glass of spirits is vasomotor paralysis of the capillaries, and this extends to the brain. The prolonged stare of the man who has drunk a glass of spirits is traceable to congestion of the retina and inability to focus the light. The convulsive and impulsive movement of the muscles following the use of spirits, show that the control center is deranged, and so on.

Musicians who depend on a trained sense of hearing realize at once the faults that follow a single glass of beer or wine, and while playing, abstain. Good musicians detect at once the faults of band music where the players use beer—faults in time, faults of rhythm and lack of steadiness in rendering the notes. The great bands of the country demand that each player should be a total abstainer at all times to do the best work. This is a recognition of the depressing effects of spirit on the sense of hearing.

In vocations requiring rapid and accurate thought, repeated experience shows the incapacity of the drinker, no matter how small the quantity may be. The proportion of mistakes and errors are far beyond what they would be otherwise.

This is not noted so sharply among trained men whose business is automatic and from day to day about the same. While their judgment and senses may be less acute as moderate or occasional drinkers, they apparently seem to do the ordinary work

without much variation, but give them new work, something to which they are unaccustomed, and the mental failure is very evident.

There is a great wealth of illustration along these lines which enter into the experience of almost any close observer. The conclusion is sustained by an ever increasing mass of evidence, that the anæsthesia from alcohol constitutes one of the most active causes of accidents and failures known.

A second conclusion is that the sight and hearing are often the most seriously affected, although this may be temporary and pass off in a short time. The impairment of vision, whether temporary or permanent, is to be recognized in all persons who use spirits, and in case of accident to be the subject of inquiry.

## Proceedings of Societies

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### CINCINNATI ACADEMY OF MEDICINE.

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The motion of Dr. J. C. Oliver, put two weeks ago, was acted on and carried, viz.: That the annual dues of the Academy of Medicine be \$5. This increase takes effect in 1914.

Dr. Walter R. Griess presented a specimen of gall-bladder removed with stones *in situ*. It was a case of ruptured gall-bladder, and the diagnosis was made before operation on general symptoms, bile in urine and no jaundice. Dr. E. M. Baehr asked how the bile became excreted by the kidneys. Dr. Griess replied through absorption from general peritoneal cavity.

Dr. J. E. Pirrung presented a specimen of colon removed (colectomy) for intestinal stasis, which persisted even after a short circuiting operation had been done a year ago. There was a narrow point in the colon below the anastomosis.

Dr. Wm. C. Herman presented color photograph of diabetic gangrene of the foot, which showed no line of demarcation. Case was fatal and was not operated on. Dr. Griess said that while he did not urge operation in these cases, "Cellasin" had been very beneficial in a number of cases in his experience.

Dr. D. D. DeNeen reported an intramural cyst of the abdominal parietes, with pus tubes and ovaries from the same case. Dr. Ransohoff asked as to the pathology of the cyst. Dr. DeNeen said it was possibly cyst of the urachus.

Dr. M. A. Tate reported a Cæsarean section for complicating carcinoma of the rectum high up. This case had a large mass in sacral portion of pelvis obstructing normal delivery, and it was necessary to do a Cæsarean section to effect delivery. Mother and child lived.

Dr. John Hadley Caldwell reported in detail, with X-ray plates before and after operation, the following two cases successfully operated; both recovered: (1) Posterior gastro-enterostomy for



cancer obstruction of the pylorus; (2) posterior gastro-enterostomy for ulcer cicatrix causing obstruction.

Dr. Walter Griess reported a gunshot wound of the abdomen with fourteen perforations of the hollow viscera. Patient made good recovery for fourteen days and then developed septicemia due to a septic thrombosis of the femoral vein. This thrombus with inguinal gland was removed at a second operation, and patient recovered. Dr. J. C. Oliver asked if the abdomen was flushed at time of first operation. Dr. Griess said he had not been guilty of flushing the abdomen since he left the City Hospital. Dr. Haines, in discussion, said the interesting part was the complication. He held thrombosis would at times occur in apparently clean cases. He has cases occur in his practice, some in clean cases, but he thought thrombi were all infectious in character.

Dr. W. D. Haines reported a case of perforating appendicitis and rupture. Operated ninety-six hours after onset. History—No temperature until after eighty hours from onset, and no vomiting from eighty to ninety-six hours when temperature was present. Perforation found in head of cecum and in appendix at operation. Recovery.

Dr. Charles E. Caldwell presented a case of intestinal obstruction with operation and fatal outcome. Acute obstruction for four days treated with heavy purgation; brought into hospital in bad condition. Intestines a tangled mass of adhesions; gut emptied in two places. Colon contained tumor mass of feces. Dr. Griess, in discussing, said in this type of case it was often best to do a simple enterostomy and get out and take a chance.

Dr. Sidney Lange presented X-ray plate of cervical rib. It was a very clear and beautiful demonstration. Patient of Dr. Percy Shields, who had made the diagnosis before the plate was made.

Dr. Charles T. Souther reported the case of a patient on whom he had done a fibroid hysterectomy two years before. She became constipated, was treated by her physician for two days, and vomited profusely as a result of cathartic. On examination abdomen was found flat, and mechanical obstruction ruled out. Expectant treatment for thirty days, after which bowel was thought

able to stand a physic. Two drops of ol. tigllii produced a stool. Case recovered.

Dr. Rufus B. Hall said, in reference to cases reported by Dr. Caldwell and Dr. Souther, that a great deal of judgment was necessary to handle these cases, and we should do what was best for the patient. They would frequently be tided over by enterostomy. Physics did a great deal of harm, and the complete operation could only be done on the early cases. Many late cases will die for all of us. Do a brief operation to tide over, and many cases will not need a second operation. Dr. J. C. Oliver said drainage or enterostomy will aid late cases. Complete operation should be done on early cases.

Dr. Joseph Ransohoff made a motion that all case reports presented on case report night, be made through the Program Committee, and take precedence over those not on the program. Seconded and carried.

*Suggestions from the Chair*—In view of the fact that representations have been made to me as president that case reports on the evening set aside for them are not sufficiently diversified to appeal to the interest of the entire membership, I have requested the Committee on Programme to arrange for the proper representation of the three sections of the Academy, namely, medicine, surgery, and the specialties, on case report night. Members desiring to present case reports on that night will, therefore, communicate with their respective representatives on the Program Committee. Announcements of case reports sent to the secretary will be forwarded by him to the Program Committee. No case report will be announced in *The Bulletin* until reported for that purpose by the Program Committee. Volunteer case reports can not be entertained until after those regularly announced have been presented.

Dr. August Ravogli presented a patient with mycosis.

Dr. Samuel Iglauer then read the paper of the evening—"Suspension Laryngoscopy, with Demonstration on a Patient and Report of Cases." Dr. Iglauer's paper took up some of the history of the development of this work, presenting several instruments and much of the detail of their use, followed by an excellent

demonstration on a patient, using only cocaine as an anesthetic. Scopolamine, morphine and general anesthetic are necessary in some young subjects. Local anesthetics will answer where the patient can be educated to the procedure. The cases reported included surgical procedures (intralaryngeal), such as removal of papilloma, treatment with cauterization of ulcerated areas, etc., by the direct method. Full report will appear later in *The Lancet-Clinic*.

Dr. J. W. Murphy, in discussing, complimented the essayist on the excellent presentation of a very modern method, and spoke of the many advantages it possesses, giving the caution that all intralaryngeal surgery was major work, and should be done in the hospital in order to be able to combat any development of edema of the larynx.

Dr. Walter R. Griess presented a very complete specimen of carcinoma of the breast removed entire from above down, including all the axillary glands, pectoral muscles and lymphatics.

Dr. B. M. Ricketts presented specimens of goitre removed from four patients—two males and two females—with a brief history of the cases, and said that all the cases were large and of exophthalmic type. All male cases coming under his observation had had some impairment of mental function. He prefers Japanese silk (fine) for ligation of vessels in these cases. The upper pole of the remaining half of the thyroid was ligated in two of the cases. Cases all convalescent.

Dr. M. A. Tate then read the first regular paper of the evening on "Splenectomy." This was a very complete paper, covering in a concise manner the early surgery and the gradual evolution of the operation up to the present time. A gradual decline in mortality to nearly 10 per cent was noted in cases that were operated before the extreme stages of the disease were reached. He spoke of how little was definitely known concerning the function of the spleen. He quoted largely from the literature to arrive at a reasonable expectancy as to mortality, indications for operation and relative frequency of the different pathological lesions affecting the organ. One personal case was cited which, while it was an extreme case and had a stormy convalescence, recovered.



Dr. Ricketts, in discussion, said that man could exist minus the spleen, that the function was not known. He held it would be interesting to know the evolutionary result of experimental removal of the spleen in successive generations of animals to see if the spleen would remain constant. The spleen is rarely absent congenitally. He congratulated Dr. Tate on an excellent paper.

Dr. W. E. Schenck said that experimental removal of the spleen in a dog produced an enormous appetite and loss of ability to choose or select food. The dog would eat its own excrement.

Dr. Chas. E. Caldwell then read the second regular paper, entitled "Operative Treatment of Ankylosis." Dr. Caldwell gave a very excellent résumé of the work of Payr, Lexer, Murphy and others. The paper was illustrated by a number of personal sketches to illustrate the technique of the different operations. Lexer transplanted the entire knee joint in 1907, but there is some question as to the permanent function of the bone transplanted. A very great amount of absorption of bone follows work on the knees, elbow, shoulder and hip. The indications and contra-indications were very fully given. Some personal work and cases were added to the literature, and considerable detail as to the long careful after-treatment was given.

Dr. A. H. Freiberg, in discussion, drew special attention to the fact that the knee joint was not favorable for the interposition of a fascia flap. Any operation that destroys the articulating surfaces and ligaments would rarely be followed by anything but a weak joint with too much lateral motion to be of service as a weight-bearing joint. The shoulder and elbow are more favorable, because muscle forms part of the joint support. The knee joint has no muscular support, and when the ligaments are destroyed the weight-bearing function of the joint is permanently impaired. Primary results are better than late results.

Dr. Moses Scholtz presented a patient with therapeutic or drug dermatitis.

Dr. G. W. McCaskey, of Fort Wayne, Ind., was then introduced and read a paper on "Functional Diagnosis of Kidney Lesions." The doctor presented a paper of unusual excellence, covering an exhaustive résumé of the best of the literature on this

subject, backed up by extensive personal investigation and experiment. The paper was a comparison of the relative merits of the value of chemical agents and drugs, such as phenosulphotalene vs. chlorides, urea and water as physiological tests of the functional secretory powers of the kidneys. This paper should form the basis for a monograph, as its practical importance would certainly seem to justify such measures. Dr. McCaskey was very moderate in drawing any conclusions of a definite character other than the weight carried by the report of his carefully controlled scientific experiments. Importance and emphasis was laid on carefully preparing a case before the tests were made, and that he frequently gave the patients as much as five days' preparation. Phenosulphotalene shows a wide variation at short intervals in the same patient, and depends on the sub- or hyper-saturation of the system with water for its rapid or slow excretion to a very considerable degree. Urea given in ten to thirty-grain doses has as definite a value as do the non-physiological drugs, and is modified by the same influences. Sodium chloride acts much the same way, and water bears a definite relation to its sub- or hyper-saturation proportion in the tissues. That the element of exercise and percentage of loss of kidney tissue are all to be reckoned with in the estimation of the several tests.

Dr. John E. Greiwe read the second paper of the evening: "Nephritis: Its Frequency and Prophylaxis." Dr. Greiwe presented a tabulation of postmortems made at the Cincinnati Hospital for four years, and in 667 cases only one case with a perfectly normal kidney was found. It showed that the diagnosis was frequently overlooked. Special emphasis was laid on the influence of acute infections of all kinds on the kidney. A plea was made for a routine examination of urine in all acute infections, not only one test but many on successive days. The great value of sudden increase in food, as a test for the functional power of the kidney was emphasized. Exercise was also spoken of as a very excellent and sure test for the functional power of the kidneys. Importance of going back in the history of adult cases to get the possible beginning of the nephritis was urged.

It was suggested that the word nephritis be used less frequently, and that nephropathy be substituted.

Dr. Paul G. Woolley, in discussion, said the term nephritis implies a kidney damage of either a permanent or a transitory type; that we may have albumin and casts, and yet have no definite nephritis. The statistics from the hospital were largely of what is known as the terminal type of nephritis, many of which may occur just previous to death. Nephritis is largely a vascular disease.

Dr. Martin H. Fischer complimented the gentlemen on the very excellent papers presented, but wished to emphasize some points made. He called attention to the experimental fact that animals could live with one-fourth of the kidney and remain perfectly well. We are endowed with four to eight times the excretory power in the kidneys to sustain life. Nephritis is a symptom of a general vascular disease, and when signs of a nephritis are present we also have changes in other organs due to the same etiological factor. Attention was called to the reason why we have a small urine output in one form of nephritis and a large urine output in another. Convulsions due to nephritis or Bright's disease coma is the same as in diabetes, and is etiologically due to the cerebral edema being greater than the blood pressure. Water is the principal diuretic, and functional tests are modified by the output of water, which water must be in excess of that necessary to supply the tissues.

Dr. E. W. Mitchell called attention to the necessity of getting a twenty-four hour specimen when making a urine test.

Dr. W. E. Kiely mentioned a case he refused for life insurance twenty-four years ago, who had just died of nephritis.

Dr. H. K. Dunham also discussed the paper.

Drs. McCaskey and Greiwe closed the discussion.



## Selected Articles

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### REPORTS ON THERAPEUTIC PROGRESS.

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#### PITUITRIN AS AN OXYTOMIC.

In *Le Scalpel* of December 8, 1912, Clavier writes fully on this topic, reporting several cases. Thus:

*Case 1*—Madam L., aged twenty-two, primipara. Last period July 4, 1911. Pregnancy normal. Travail began April 12, 1912, at 5 p.m. Woman suffered greatly all through the night. April 13, examination revealed the cervix effaced, completely dilated, the anterior lobe alone being accessible; the summit further up was badly flexed. No contractions. Patient much exhausted. Pituitrin injection. At 12.20 labor pains began again with violent contractions; woman greatly agitated. Right episiotomy. At 1.15, spontaneous expulsion of a boy; fifteen minutes after the expulsion of the fetus, normal delivery of placenta. Child-bed progress normal. In this case the principal fault lay in the absence of contraction during the expulsion period. This is one of the most frequent indications for the use of the forceps, and likewise that in which the administration of pituitrin is most clearly indicated and the results most appreciable. This procedure should attract the attention of accoucheurs, if for no other reason than that it presents none of the inconveniences of an obstetrical operation, such as is experienced by the use of the forceps, for example. In this, his first case, he saw what Holbauer justly terms a "tempest of contractions."

*Case 2*—Madam T., thirty-three years, secondipara. Labor began at full term, February 7, 1912, at 11 p.m. At 8:05 a.m. spontaneous rupture of the bag of waters. The midwife recognized an impacted breech presentation, not noticed before. The cervix was dilated to about the size of a silver dollar. At 7 c'clock, when he first saw the woman, dilatation had not progressed at all. During the examination not the slightest contractions were noticeable. Pituitrin injection. At 7:25 he noticed the return of

labor pains—these were, so to say, subintrans; at 8 o'clock the breech presented and was easily disengaged. A girl, weighing about 3 kg., was delivered at 8:20. Progress normal.

Obstetricians have always considered a breech presentation as unfavorable, requiring the most delicate treatment when the breech is fixed, even if not so much attached but that the fingers can reach the anterior groin. Thus, Pinard has suggested the prophylactic depression of the anterior feet when possible—that is, when the breech is not too much fixed. For such cases in which the feet can not be depressed and when interference is imperative, various instruments, unfortunately for the child, have been used, and these instruments are responsible for lesions of the soft parts and fractures of the femur, etc. This fact has led Fabre to say that the crochets should never be used except on a dead child. The advantage of pituitrin in such circumstances is easily seen. It was the first time that he tried the drug, and he was astonished at the action.

*Case 3*—Madame M., multipara. Slight laryngeal tubercular affection. Incessant vomiting and fever. General condition precarious. Five months pregnant. In agreement with Drs. Breyre and Reuleaux, it was decided to interrupt the pregnancy.

May 15, dilatation of the cervix with a Hégear bougie, followed by tamponment of the inferior segment and the cervical cavity with sterilized gauze soaked in glycerin. May 15 and 16, no pains; 17th, introduced a balloon de Champetier at 9 a.m. Noon, no contractions. At their suggestion, Dr. Reuleaux made an injection of pituitrin. Shortly after travail began, and at 1.15 the fetus was expelled. Progress normal, as far as the genitals were concerned.

Attention is called to the extreme rapidity with which this premature accouchement was accomplished a short time after the injection of the pituitrin, and at a period so far removed from full term. Some may say that the manipulation, tamponment, and introduction of the balloon contributed in a measure to this end, but not the slightest contractions were produced by these measures. The merit of pituitrin in all cases is to hasten an otherwise prolonged and tedious process. Certain authors admit that the

drug is less effective when the accouchement is so far removed from term. The above as well as the following instance merit consideration in this respect.

*Case 4*—Madame D., aged twenty-nine, secondipara. Last period November 12, 1911. April 30, began to lose blood. Rest in bed was ordered. Hydrastis. May 3, flow abundant, so that the patient had to remain in bed. May 6, the cervix was opened. Along the long and somewhat dilated cervix a small fetal particle (foot) was noticed. Cervicovaginal tamponment with sterile gauze soaked in glycerin. May 7, no contractions, tamponment renewed. May 8, at 4 p.m., serious hemorrhages. The cervix permitted the introduction of the index-finger. Injection of pituitrin. In about fifteen minutes labor began; at 6 o'clock (during the absence of Clavier) the fetus was expelled, followed a few minutes later by the placenta. Some loss of blood, the cause of which could not be determined. Normal recovery.

In this case the usual means for inducing labor were unsuccessful. The moment pituitrin was injected a discharge at once set in. Clavier asserts that prior to his acquaintance with this drug he should not have hesitated to adopt active measures on the third day—forcible dilation of the cervix, followed by no less forcible extraction of the fetus, and finally digital and instrumental curettage, all of which would no doubt in turn have given rise to more or less pyretic symptoms. He still has the sad recollection of such a forcible extraction of a five months' fetus (in 1910), assisted by a colleague, which nevertheless terminated in most grave septic results (suppurative pelvic peritonitis). After waiting three days in vain, after spontaneous rupture of the membrane, they intervened by attempting to induce labor by the use of laminal stem. A morning temperature of  $37.8^{\circ}$  decided them to hasten the deliverance.

*Case 5*—Madame S., aged twenty-three, primipara, very stout. Operated for a cold appendicitis October 23, 1911. Last period November 9, 1911. Beginning of labor August 19, 1912, at 9 p.m. August 20, 10 a.m., a few feeble contractions at long intervals; at 4 p.m., little progress, cervix dilated to about the size of a 50-cent piece, bag of water intact. Breech presentation. In-



jection of pituitrin. At 5 p.m. labor pains more violent. Spontaneous rupture of water; at 7 p.m., patient who was very nervous and at the end of her strength, begged for the application of forceps. By this time the cervix was completely dilated, and free at the summit. This mode of presentation, as well as the desire on Clavier's part to end the long wait—for he had been with the woman since 10 a.m.—induced him to intervene, and he is congratulating himself on having resorted to pituitrin. He agrees with A. Ross, who says: "We here have a preparation *which saves the patient as well as the accoucheur long hours of waiting.*"

Using chloroform anæsthesia, which he entrusted to a most prudent and careful colleague, he made an internal version, introducing the entire left hand first on the summit of the right side, and after crossing taking the fronto-mastoidien. Incidentally, he states that he considers this mode of procedure less dangerous for the vagina than the "grand tour", when dealing with a posterior presentation in a primipara.

At 7:40 p.m., difficult extraction of a female child, about 3 kg., without perineal lesion. No unusual loss of blood. About 15 grammes of chloroform had been given, when the anæsthetist announced that the patient's pulse was gone. In spite of injection of stimulants—ether, caffeine, oil of camphor—this syncope lasted two hours, after which the pulse finally resumed and stood at 120. Clavier watched the patient until about 6 a.m.; she did not appear to be losing strength, and the retraction of the uterus was complete. The rapid pulse continued during the child-bed period, but there was never any temperature (maximum 37.2°). The woman nursed her baby. From time to time she gave some evidence of tachycardia, but no signs of heart affection or of Basedow's disease could be detected.

Clavier presents this case in detail because of the fortunate part played by pituitrin in bringing about the uterine dilatation, as well as the syncope which followed the accouchement, which the family attributed to the pituitrin. *But he can not agree with them*, because pituitrin is a heart hypertonic, and, moreover, the syncope occurred three hours after the injection. He can not, however, give any definite cause for the prolonged syncope.

The great value of pituitrin can thus be recognized in cases when it is desired to hasten the travail, such as in prolapse of the cord and in placenta previa.

Let us suppose a pregnancy close to term, with hydramnion. The travail has begun, the cervix is dilated to about the size of a silver dollar; the summit is mobile. Rupture of the bag of waters, with rapid discharge of amniotic, produces a prolapse of the cord. The cervix is successfully reduced, the pulse distinctly visible, but in order to avoid a new prolapse it is necessary to avoid a new prolapse it is necessary to fix the head. This is what pituitrin will do.

In placenta previa the question is no less interesting. Numerous publications have recently appeared on the treatment of this grave complication, and it was the order of the day at the Obstetrical and Gynecological Congress in Berlin in September, 1912. The French for the most part adhere to the old so-called obstetrical therapeutic rupture of the membrane (ballooning, or Braxton-Hicks version), while the Germans recommend surgical interference (Cæsarian, vaginal, classical, or extraperitoneal). The French with their procedure show a mortality for the mother of only 8.2 per cent (Couleuvre), and a fetal death-rate of 44 to 60 per cent. They regard their method as a sufficient means of combatting hemorrhage, the risk of death from which is small (1.2 per cent).

Haugh and Meyer have studied the value of pituitrin as an echolic against hemorrhage, and it is from their work that the following rules are taken, for certain conditions are required for a successful use of the drug:

1. The woman must not be too anemic.
2. Longitudinal presentation of the fetus.
3. There must be no mechanical disproportion.
4. Dilatation of the cervix sufficient to allow a wide rupture of the membrane.

Three failures in seven cases in which the remedy was used is the record, and one of these three was a case in which it was necessary to bring about a premature birth on account of a serious pyelitic cyst, and the other two were instances of placenta previa,

in which the rupture of the membrane always makes the outcome uncertain. The results are, nevertheless, very encouraging, and it was deemed useful to publish them for the benefit of the practitioner.

The preparation is contraindicated:

1. With regard to the mother, when there is arterial hypertension, for we know that pituitrin increases blood-pressure. This hypertension in a pregnant woman causes what Bar terms eclampsia, and it is better not to use the drug in order to avoid such a contingency.

2. With regard to the fetal presentation, it is clear that the preparation is contraindicated when there is a certainty that the accouchement can not be accomplished with the force of the uterine contraction above. In a shoulder presentation, for instance, it would be a serious mistake to use pituitrin with a previous podalic version, but there is no danger after the version is accomplished if one wishes to avoid a too violent traction, which is a good practice.

When the child is large, and one wishes to determine a stricture (anteroposterior diameter  $7\frac{1}{2}$  per cent), a more adequate procedure is required, such as classic Cæsarian, pubiotomy, etc., or in the case of a dead child, craniotomy.

3. As far as the age of pregnancy is concerned, the action is doubtful in producing an abortion or merely a premature birth.

Outside of these restrictions, pituitrin is superior to the methods hitherto employed to induce or accelerate labor, whether mechanical, such as abdominal function, or warm vaginal injections, etc., or medical, such as lactose, sulphate of quinine, and ergot, happily now abandoned for this purpose.

Clavier heartily recommends his colleagues to profit by the marvelous action of pituitrin.—*The Therapeutic Gazette*.



## Extracts from Home and Foreign Journals.

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### SURGICAL

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#### THE TREATMENT OF HEMORRHAGIC CONDITIONS BY THE INJECTION OF HUMAN SERUM.

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Dr. Roger Herbert Dennett read this paper for Dr. John Edgar Welch. Dr. Dennett said that the first case of this kind which he had seen with Dr. Welch was that of a child who had had a hidden meningeal hemorrhage and was practically moribund. He was six days old and the hemorrhage had been going on for three days. Six or eight hours after the injection of human blood serum the entire condition changed, just as had been described as taking place after a transfusion. Shortly after the second injection the child began to nurse again. Lumbar puncture had been done to confirm the diagnosis of hemorrhage and pure blood was withdrawn from the spinal canal. A second lumbar puncture the day after the injection of the human blood serum showed that no hemorrhage was taking place. Dr. Dennett said he wished particularly to mention this case because it had been said that desperate cases of hemorrhage should be transfused. Dr. Soresi had mentioned that there were two great advantages in transfusion, the cessation of bleeding and the formation of new blood. Even if it were claimed that all the serum did was to stop the bleeding( it was remarkable how quickly infants seemed to be able to add to their blood supply. Dr. Welch called particular attention to the use of the serum after the hemorrhage had ceased. The more experience they had the more they favored using the serum for four or five days after the cessation of the hemorrhage. The speaker cited a case in which after the serum had been employed for two days they thought the hemorrhage had ceased and discontinued the use of the serum; on the fourth day there was a recurrence of the hemorrhage and the child died in consequence. Had they followed the rule of continuing the use of the serum for four or five days the child might have been saved. Of

course, neither human blood serum nor transfusion could cure syphilic or septic infections, nor could these agents cure ulcers of the gastrointestinal tract. One could not expect human blood serum or transmission to act as a panacea for all hemorrhagic conditions, but until these conditions were better classified they must use the human blood serum or transfusion in all cases that came along. Dr. Soresi was so proficient in transfusion work that he felt sure that he had led them to believe that the technique was easier than it really was.—*Medical Record*.

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#### HYPERTHYROIDISM PRECIPITATED BY IODINE.

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Gastro-enterostomy was done for obstructive gastric cancer, the skin being disinfected with iodine. The patient was a woman aged 64, with a small elastic left-sided goitre which had never given symptoms. On the third day the pulse gradually rose to 180 and reached 200 on the fourth. Other but not all signs of Graves' disease were present. Death occurred on the nineteenth day, although digalen has temporarily brought the pulse down. The heart was slightly dilated, flaccid, and there was a small embolus in the right pulmonary artery. Iodine was absent in the urine from the 7th to the 10th day, present from the 11th to the 15th.—*Buffalo Medical Journal*.

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#### QUININE ANAESTHETIC.

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In operations upon nose and throat in children or individuals who show an idiosyncrasy toward cocaine, Chavenne employs the following formula:

Phenolis -----	2.0 grams
Mentholis -----	2.0 grams
Quininæ hydrochloridi -----	1.5 grams
Adrenalin -----	0.005 gram

This will form a syrupy fluid, which when applied in small amounts upon mucous membranes will give rise to a satisfactory anæsthesia. Cauterizations and small operations can be per-

formed without any pain. The combination is not caustic, since menthol is known to counteract the caustic properties of phenol. The presence of quinine considerably increases the anæsthetic effect, though quinine alone was unsatisfactory.—*Klin. Therap. Woch.*

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#### SURGICAL TREATMENT OF TROPICAL DYSENTERY.

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Dr. O. Muller reports four cases of appendicostomy for dysentery, two of amœbic and two of bacterial character, in all of which marked improvement or a cure resulted. He regards appendicostomy as less dangerous and more reliable even than high irrigation in cases of ulceration of the bowel. He prefers a transverse to a lateral incision along the sheath of the rectus. For the success of the operation it is necessary that the appendix should be sufficiently long and movable, though adhesions may be separated and the mesenterium detached to enable the appendix to be sutured in position without undue traction. It is important, however, to avoid separating the entire mesentery, as this might lead to gangrene of the stump. Muller also advises that before suturing the appendix to the abdominal wound a catheter should be inserted and a test irrigation made. If this be omitted the surgeon may be in the unpleasant predicament of overlooking an occlusion of the appendical lumen. If a stricture should be found or the presence of other severe destructive changes be detected, it is better to dispense with appendicostomy and replace it by cecostomy. The latter has the great advantage that through the formation of an artificial anus the entire colon is placed at rest. On the other hand, it has the same objectionable features *belonging* to an artificial anus.—*Journal of Surgery.*

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#### THE TREATMENT OF METATARSALGIA.

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Morton's disease or metatarsalgia, is a not infrequent orthopedic condition, met with in general practice, characterized by more or less acute cramp-like pains occurring at the base of the



third or fourth toes. The pain comes on suddenly during the use of the foot and may be very severe. It is often accompanied by a snapping of the bones. A sense of soreness or numbness remains after the attack is over. The etiological factor seems to be a mechanical one; the lateral pressure of the head of one metatarsal bone below and against the neck of the neighboring metatarsal bone results in an undue pressure upon the superficial branch of the external nerve and its digital branches, which are squeezed between the two bones.

Attempts have been frequently made to alleviate the condition by correcting the flat-foot, which not infrequently is associated with the metatarsalgia, and also by fitting a metal plate with a gradual dome raised to fit in behind the head of one of the offending metatarsal bones. More rarely a division of the superficial branch of the external plantar nerve or the resection of one of the heads of the metatarsal bones has been employed to relieve an obstinate case.

T. P. Low (*Brit. Med. Jour.*, March 15, 1913), treats metatarsalgia by grasping the affected foot with the hands, one on either side, and forcibly moving the metatarsal bones upon each other, and then forcibly flexing and extending the toes and foot. In this way any existing adhesions may be broken up. Low claims that in the few cases in which he has tried this simple form of treatment, all have responded well and the relief has been permanent. Shoes of proper width should be worn after an attack to avoid compression on the front of the foot.—*Medical Review of Reviews*.

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#### TRAUMATIC HEMORRHAGE AND ATROPINE.

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A noted Chicago lawyer gave himself a bullet wound in the chest. A consultation of prominent physicians was held, but the man died, before their eyes, of internal hemorrhage.

In a neighboring city a prominent man inflicted on himself a pistol-bullet wound in the chest. A consultation of prominent doctors was held and all agreed that nothing could be done, that

the wound was necessarily fatal. A young interne requested permission to make a trial. He gave the dying man rapidly repeated doses of atropine until his face reddened, stayed all night, keeping up the action—and the patient recovered.

Atropine was not employed in the first-mentioned case. Several hours elapsed after the wounding before the end came, time enough to show that the bullet did not sever a vessel of primary caliber. The physicians in charge undoubtedly knew nothing of this unique application of atropine. They knew of the active-principle movement only through the attacks of its enemies.

The youthful hospital-physician who won such a distinguished triumph over his elders had really been instructed in correct modern therapeutics.—*The American Journal of Clinical Medicine.*

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#### RENAL TUBERCULOSIS.

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Rafin has made a careful study of 160 case histories, these patients having been subjected to primitive nephrectomy because of renal tuberculosis with the idea of determining what symptoms first called attention to the abnormal condition of the kidney. He notes that vesical symptoms were those which first attracted the patient's attention in over 60 per cent of the cases, renal symptoms in about 20 per cent. Only 2.5 per cent exhibited early marked impairment in general health. Changes in the urine, such as albuminuria, turbidity, or hematuria, were the first to attract attention to the abnormal condition in less than 10 per cent. As to urinary changes Melchoir has long since announced that the urine of patients subject to urinary tuberculosis is usually aseptic, from which follows the dictum commonly accepted that a sterile purulent urine is almost certainly tubercular. Rafin has corroborated this views, contested by Albarran; from 239 examinations he obtained positive cultures in 71 cases; usually it was staphylococcus. Of these 71 infections 37 were due to anterior catheterization and 9 to an accompanying blennorrhagia. Hence there remain but 25 cases in which the exogenous nature of a mixed infection was proven. Moreover, in probably the majority of these 25 cases an exogenous cause is not improbable. Hence it ap-

parently remains true that an aseptic pyuria indicates tuberculosis. Incidentally it seems clear that all intravesical manipulations under such circumstances should be avoided unless positively indicated, and should then be conducted with the utmost precaution.—*The Therapeutic Gazette*.

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#### DESICCATION AS A THERAPEUTIC MEASURE.

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Drying probably does more toward limiting the spread of contagion than any other agent save oxygen and light. It acts in at least two ways: By simple dehydration of the protoplasm of bacterial cells life becomes extinct because of disintegration of the proteid. Again, by dehydrating the media in which such bodies live, as culture media, blood-serum, pus, and other fluids, infection is resisted because of the interference with growth, motility, and migration of bacteria.

Quite a school of surgery has developed about the dry treatment of wounds. Good surgeons will never wash a clean uninfected incision when dressing it, not even moistening the gauze to loosen it from the wound. Burns are best treated by dry methods.

If moist measures, such as compresses, oils, etc., are used, infection is more liable to occur, with ulceration, scarring, and a whole chain of ills that follow in the wake of infected burns.

Dry methods in the treatment of ulcers are among the best employed. Simply keeping a leg ulcer exposed to the air, lightly dusted with aristol and stearate of zinc, is a most effective way to treat it, especially if the patient will lie down and elevate the leg and protect it from flies and dust with a diaphanous layer of gauze.—*Therapeutic Gazette*.



## OBSTETRICAL

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### GYNCOLOGICAL HINTS—CANCER.

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If carcinoma of the uterus is to be cured an early diagnosis must be made, and for this reason women should be thoroughly examined whenever there are symptoms referable to the uterus, especially if there is a vaginal discharge with or without hemorrhage.

Young as well as old women may have carcinoma of the uterus. Enough stress has not been laid on this fact, and the disease has been allowed to reach a point in the former where no benefit could be obtained from an operation.

Carcinoma is much more frequent in the cervix than the fundus uteri, but when it originates in one portion of the uterus it usually extends slowly to the other.

All granulations scraped from either the fundus or cervix should be subjected to a careful microscopical examination.

Probably at least 90 per cent of all cases of carcinoma of the cervix start at the site of an old laceration, and it is good practice when operating for such a laceration to have the removed material examined microscopically. In many instances cancer will be found where you least expect it.

A persistent watery discharge from the cervix, though the amount may not be large, is always suspicious of carcinoma of the fundus, and it is especially so if at times it is streaked with blood, or there is a slight increase in the menstrual flow. If a woman has passed the menopause and the above symptoms appear, malignant disease is almost invariably present.

The only treatment for early uterine cancer is hysterectomy with extensive removal of the neighboring cellular tissue, tubes, ovaries and upper portion of the vagina. It is of no benefit to remove glands that are remote from the uterus.

A tender tumor of the ovary, accompanied by severe pain that is persistent and associated with every little if any rise in temperature, is very characteristic of malignant disease of the ovary, especially sarcoma.

Inoperable carcinoma of the cervix can be very materially benefited by the thorough use of the actual cautery. If the lower portion of the vagina and external parts are not injured, no pain will follow its use.—*International Journal of Surgery*.

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#### ABDERHALDEN'S BIOLOGICAL TEST FOR PREGNANCY.

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According to Abderhalden's observations, the development of a placenta causes the appearance of a foreign protein in the mother's blood. The test is based upon the assumption that a protein, foreign to the blood, will induce therein the development of an enzyme, capable of splitting such foreign protein.

Two methods of making the test have been described. The first method depends upon a change in the optical characteristics of the serum after it has been allowed to remain in contact with peptone prepared from placenta or with a preparation of the boiled placenta. Such change is noted with a polariscope. Williams and Pearce (*Surgery, Gynecology, and Obstetrics*, April, 1913), find this method objectionable and have employed another method in a series of tests. They use the technique as recommended by Abderhalden i. e. the transformation of the protein of the placenta which is recognized by certain color reactions, after dialysis. The method of performing the test is as follows: Fresh placenta free of all soluble protein is added to serum and placed in an animal membrane. This membrane must be permeable to peptones only. The membrane is then placed in a beaker of water, and after 16 to 24 hours the dialysate is tested for peptone or amino-acids. Triketohydrindenedehydrat (Ninhydrin) is used as a reagent and a deep blue color results if the reaction is positive.

In 36 cases the test has always been positive in a known pregnancy. They have found, however, that the serum of pregnancy reacts with tissues other than the placenta, and in addition have obtained the reaction in cases of nephritis, tabes and infection, and in some individuals apparently in perfect health. Their latter findings, of course, eliminate the present test as an accurate clinical test of pregnancy. McCord, however, in the same journal,

basing his observations on 240 tests, concludes that this method of sero-diagnosis, is both reliable and practical.—*Medical Review of Reviews*.

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#### POSTMORTEM RESULTS OF AMPUTATION OF CERVIX.

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An analysis of 128 cases reported by Leonard shows that hemorrhage after amputation of the cervix is not uncommon (5 per cent), and may occur weeks after operation. Cases of late post-operative hemorrhage are due to infection rather than faulty suture of the cervix. After amputation of a diseased cervix, 90 per cent of the patients show noticeable improvement in general health. Persistent leucorrhea of cervical origin is cured in 60 per cent of cases and improved in 30 per cent. About half the patients experience less menstrual pain after the operation. Four-fifths of the women remain sterile after operation; yet in certain selected cases of persistent sterility amputation of the cervix seems to be the only practicable procedure. This postoperative sterility is probably mechanical in origin, and may be due either to a narrowing of the external os through encroachment by the edges of the vaginal mucosa or to a stenosis of the cervical canal. Consequently, on the iris-like contraction of the citatrix which invariably follows the operation. A pregnancy following amputation of the cervix has not more than an even chance of progressing to full term, in which event serious dystocia due to cicatricial rigidity, follows. It is the operation of choice in elderly women, but this procedure should be applied to those in the child-bearing period, only when more conservative methods of treatment, such as Hunner's linear cauterization or thorough curettage of the cervix have failed.—*New Orleans Medical and Surgical Journal*.

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#### SIGNIFICANCE OF ALBUMINURIA IN PREGNANCY.

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II. Williamson concludes that condition of acidosis is found constantly in cases of pregnancy toxemia when the lesions are of



a certain grade of severity, and is not found in cases of chronic nephritis even when the symptoms are severe; and, further, that the onset of an acidosis in the course of a chronic nephritis may be interpreted to mean that toxemia has been added to the existing lesions. The author has been disappointed to find that these tests have failed in the earlier and slighter cases; in a number of instances he could find no evidence of acidosis, and in several instances in which the symptoms passed away under treatment the ammonia-urea co-efficients remained normal, and acetone and diacetic acid were never demonstrated in the urine. In spite of this, however, the tests are of real clinical value. The author does not believe that the symptoms are due to the acidosis; indeed, these results definitely disprove this theory, because the symptoms are often present in a mild form before one can find any evidence of acidosis, but the results of treatment indicate that if one diminish the acidosis the severity of the symptoms will be alleviated. In severe cases of eclampsia improvement follows an intravenous infusion of solutions of sodium acetate and sodium bicarbonate. Some important point in treatment are emphasized: (1) In cases of pregnancy toxemia chloroform should never be administered, because the action of chloroform is to render more grave the lesions which already exist and to increase the acidosis. Ether administered by the open method is in every way preferable as an anæsthetic. (2) Calomel should not be used as an aperient, for the lesions in the liver and kidney produced by mercurial poisoning are of the same nature as those of pregnancy toxemia, and it is probable that mercury even in small doses will increase the gravity of the lesions already existing. (3) For a similar reason douches of mercurial antiseptics should never be employed. (4) In all cases in which an acidosis is present an intravenous infusion with a solution of sodium bicarbonate or sodium acetate should be practiced. (5) The fat metabolism should be spared as far as possible by the administration of glucose. The author's practice has been to administer it by the rectum when vomiting is present and to give it by the mouth in the form of glucose lemonade where the digestive functions are not deranged. (6) When a pregnant woman suffering from chronic nephritis shows

evidence of the existence of acidosis, the uterine contents should be evacuated without delay, for with a kidney previously damaged the prognosis of pregnancy toxemia is very grave.—*Medical Record*.

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#### PREGNANCY AND TUBERCULOSIS.

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Emphasizing the necessity for the ingestion of as much food as the patient can bear in cases of tuberculosis with pregnancy where it is decided not to empty the uterus, the author states that, if the patient is not prejudiced against wine, manzanilla, a light, bitter sherry, which must be imported already bottled from Spain, will cause, he has found, a very marked increase in the patient's appetite. He prescribes a combination of lysol, 1 part; ichthyol, 10 parts, and glycerin, 20 parts, with the wine in addition. This will generally cause the patient to gain 20 ounces a week. The best mode of administration is to begin with 1 drop of the lysol-ichthyol mixture, and increase by 1 drop at each dose until 30 drops are attained, when the amount is kept at this figure. The preparation is dropped into a half-tumblerful of water and taken just before meals. By virtue of the resulting superalimentation, the author believes that the danger of fatality from pregnancy in these cases can be reduced to about 60 per cent. Still safer, however, is to empty the uterus promptly.—D. H. Stewart (*Medical Record*, November 16, 1912.)

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#### MEDICAL

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##### VIKING VITALITY.

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Professor Zetius seems to be greatly perturbed about the fate of the blonde race. Although the fair, blue eyed dolichocephalic type has been recognized as an anthropological incident for some fifty years, it is only lately that the problems presented by these people have attracted serious attention. We know that they were evolved in the cold dark cloudy places of the earth, and they can

not move too far from their place of origin without paying the penalty. City life destroys them and they can not work in factories. The boundless space of the earth and sea nourish them; they crowd on ships and in the armies of the north in their efforts to breathe the untainted air that is the very breath of life to them as it was to their Viking forebears. These facts have a direct practical value. We must remember that where change of environment may be beneficial to the pigmented city-dweller it may be an absolute necessity to the blond Aryan in, for instance, cases of incipient tuberculosis. The fair-haired race is here amongst us and demands special treatment, which at present it does not get. The insurance companies could help us greatly by their mass of statistics, but up to the present they do not seem to have recognized even the existence of our fair-haired sojourners.—*The American Practitioner*.

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#### X-RAY INJURIES NOT AN ACCIDENT.

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A writer in the *Augsburger Postzeitung* notes the case of an electrician who was employed for fifteen years in the x-ray room of an orthopedic clinic and had suffered from a chronic affection of the skin of the hands and face resulting from constant exposure of the rays. He was finally incapacitated, and applied to his trade union for the indemnity for accidental injury during employment. The union refused such indemnity, stating that the injury complained of was not due to any accident, but was really an occupational disease, not to be indemnified according to the terms of insurance. An appeal to the courts was decided in favor of the union's interpretation of the agreement.—*Zeitschrift für Versicherungs Medizin*, Vol. V, No. 12.

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#### CAMPBOR IN THE TREATMENT OF PNEUMONIA.

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Pneumonia, called by Osler a self-limited disease against which no method of treatment is of any avail, is, in the experience of very many able and observant practitioners, one of the most amenable to proper treatment, except in the rare cases of massive



infection, of all the infectious diseases. Forty years ago James R. Leaming proclaimed the curability of pneumonia by a massive dose, twenty grains and more, of calomel—an early and empirical application of Ehrlich's theory of *therapia magna sterilisans*. He practiced what he preached, for when he himself was attacked with the disease he took calomel—and recovered. Ten or fifteen years later Andrew H. Smith and others demonstrated the value of the salicylates and of creosote carbonate in the specific treatment of pneumonia.

Some years ago August Seibert of this city published a reprot of a number of cases of pneumonia treated by hypodermic injections of large doses of 20 per cent camphorated oil, and also gave the results of a number of experiments with camphor injections in rabbits previously inoculated with cultures of the pneumococci. These reports were published in the *Münchener medizinische Wochenschrift*, No. 36, 1909, and in the *Medical Record*, April 20, 1912. Seibert's observations have been confirmed recently by Leo. of Bonn in two communications to the *Deutsche medizinische Wochenschrift*, Nos. 13 and 15, 1913. In the first of these the author says that the experiments thus far made in cases of pneumococcus infection indicate that "camphor has a specific action against pneumonia," and in the second he quotes from Ehrlich to the effect that Böhnke, experimenting on mice in the institute at Frankfort, had succeeded in curing pneumococcus infection by subcutaneous injections of camphor oil. Iversen, also, writing in *Tratch* of January, 1912, reported good results with injections of 20 per cent camphor oil, and noted that the toxemic symptoms were markedly ameliorated in all cases, even in the alcoholics and in those who finally succumbed. These observations of Seibert, confirmed by workers in Bonn, Frankfort, and St. Petersburg, the favorable results obtained by Wright in the use of mercury succinimide (*Medical Record*, June 1, 1912) and the earlier successes with creosote carbonate, the salicylates, and calomel should suffice to down the pessimism which so long dominated the therapeutics of pneumonia and other infectious diseases, but which is now disappearing along with the dying school of therapeutic nihilists.—*Medical Record*.

### TOADS AND WARTS.

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We have all heard the old grannies say that warts were due to handling toads, and have laughed at the notion. Quite a long time ago we disproved this statement by personal experiment, but we also proved that rhus toxicodendron was harmless—to the same subject of experiment. In the light of recent discoveries showing the presence of an irritant poison—buffoin—in the skin of the toad, and a similar one in the frog, we are rather inclined to place some credence in the toad theory of the production of warts. Caspar and Loewy have reported that the arrow poison of the Indians of Columbia is derived by pricking the skin of a frog. This poisoning paralyzes the animal shot and enables him to be captured even if slightly wounded. Now don't understand us to claim that all warts are due to handling toads, or frogs, nor that every child handling a bactrian develops warts. But papillomas generally are due to irritation, perhaps especially of a chemic nature. Warts are undeniably more common in country dwellers than in city dwellers, they are more common in the summer than in the winter, though often persistent, they are more common in the young and rarely affects adults who are careful as to their hands. We suggest that, this summer, our readers investigate the etiology clinically, with a view to determining how far exposure to various irritants is operative, and with particular attention to the toad theory and to ascertain other potential causes.—*Buffalo Medical Journal*.

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### A STUDY OF THE RESPIRATION AND CIRCULATION IN EPILEPSY.

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Pollock and Treadway (*Archives of Internal Medicine*, Vol II, No. ), conclude as a result of the study of forty-four cases by graphic methods that in these cases:

1. There are present in many cases of epilepsy rythmical variations of blood-pressure other than those due to respiratory movements.

2. The sequence of events relative to a convulsion is as follows: A preliminary rise in blood-pressure followed in series by a sud-

den drop of blood-pressure, a period of apnoea, and then the convulsion.

3. The blood-pressure was relatively low during convulsions of petit mal type and during some of the corresponding period of the fits of the grand mal type.

4. The pulse was rapid during the convulsion.

5. A study of the changes in the respiratory and circulatory systems in some of the cases of epilepsy suggests that the site of discharge is in the medulla and pons (the "lowest level of fits" of Hughlings Jackson). Likewise it points to the medulla as participating in the discharge in all cases of epilepsy whether this discharge originates there or not.—*New Orleans Medical and Surgical Journal*.

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#### PANCREATIN IN ANEMIA.

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The *Therapeutic Record* states that in an article which appeared in *Deut. Med. Woch.* a short time ago, by Brieger, is given that author's treatment of pernicious anemia. Brieger had found that in many cases of cancer, both operated and non-operated, by giving pancreatin internally he could bring down the high antipyretic index to normal, and there was a corresponding improvement in appetite, general condition and weight. But in some cancerous patients the influence on the index was an opposite result. It was then suggested that for tuberculosis one might combine the pancreatin cure with the tuberculin cure. In the past three years Brieger has also applied this idea to the treatment of pernicious anemia. In combating pernicious anemia he employs a combination of pancreatin and arsenic. The arsenic is given as Fowler's—two drops three times a day, to be increased and then diminished in the usual fashion. The pancreatin was given three times daily, before meals—the quantity as much as can be retained on a knife blade. Three cases of pernicious anemia treated in this manner made rapid and most marked improvement.—*The Medical Brief*.



## HYPERIDROSIS OF THE FEET.

According to Saalfeld, most cases of this disagreeable complaint can be cured or ameliorated by soaking the feet for ten minutes, night and morning, in a warm creolin bath, one drachm of creolin to one gallon of water. The feet are then thoroughly dried and the following ointment applied:

R Creolin.

Hydrarg, Ammoniat -----	aa. .2
Acid salicylic -----	.6
Paraffin -----	.32

For inflamed acute cases, a milder ointment must at first be employed. The patient's stockings should be changed at least twice a day and should be first soaked in a three per cent boracic acid solution and then dried before wearing.

In order to remove the disagreeable odor from the boots, they are filled a few hours before using with a solution of formalin, one tablespoon to one quart of water.—*Med. Review of Reviews*.

## TREATMENT OF SMALLPOX BY TINCTURE OF IODINE.

Pedley writes in the *Indian Medical Gazette* for November, 1912, on this topic.

While seldom having the chance of treating a case of smallpox, Pedley had been on the lookout for an opportunity of using iodine, for he felt that its penetration of the thin covering of the vesicles would have the effect of destroying the activity of the microorganisms contained in their lymph.

On the first appearance of the spots he painted them whenever they occurred with equal parts of tincture and liniment of iodine. After three days he changed this to the tincture alone, using it twice a day. The rash was profuse on the face, chest, arms and hands. The patient found the application of the tincture cooling and grateful, and asked for it to be repeated. It was kept up for six days. The result was remarkable. There was no itching, no discomfort, and no secondary fever whatever; the vesicle col-

lapsed and shriveled; the cuticle peeling off left a clean, white surface, quite free from marks or scars.

While he believes that the course and severity of smallpox may be much modified by keeping down the fever by the thorough and continuous use of cold water, he feels sure that in the application of tincture of iodine we have a most valuable remedy.—*The Therapeutic Gazette.*

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#### THE LETHAL DOSE OF CORROSIVE SUBLIMATE.

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Almost always when a physician is called to testify in a court of law in a case of poisoning he is asked by one of the attorneys, or by the judge, "what is the lethal or fatal dose of the poison under consideration?" and not infrequently the legal mind finds it difficult to understand why the physician can not name a definite or fixed amount of a well-known toxic agent.

There are, of course, many reasons for this aside from the difference in susceptibility of the individual. Much depends upon the rapidity with which the absorption of the drug has taken place, and this in turn depends upon the activity of the circulation, the competency of the stomach to perform its functions, and whether the poison is diluted by considerable quantities of food and drink. For this reason all those who are acquainted with toxicological literature know that the lethal dose of death-dealing drugs must vary in each individual case, in some instances an amount scarcely larger than that sometimes employed for medicinal purposes acting as a poison, and in other instances very large doses being taken without the production of very dangerous symptoms.

An illustration of this is afforded by a report made to the *British Medical Journal* of January 18, 1913, by Fuller, who records the case of a man eighty-five years of age, who swallowed by mistake 8 $\frac{3}{4}$  grains of bichloride of mercury. The patient at once recognized his error and drank a tumblerful of barley water. Seen by his physician half an hour later he was given white of egg, and when he retched he brought up blue-stained mucus from the indigo in the bichloride tablet. The stomach tube was then

passed and the stomach washed out with large quantities of albumen water and milk and water. There was an urgent desire for the bowels to move, but very little more than mucus was passed. The patient became extremely collapsed, was cold and pallid, and the pulse was almost imperceptible. Strychnine was given hypodermically and milk and brandy by the mouth. The next morning he was somewhat better, but was still in a very critical condition, and for several days the bowels continued to be very irritable, but his general condition improved. We are told that after a slow convalescence he quite recovered from the effects of the poison. Fuller points out that while other cases have been recorded in which recovery followed an even larger dose, nevertheless an instance is reported in the *British Medical Journal* for 1905, Volume I, in which a dose of  $2\frac{1}{2}$  grains was swallowed and death ensued in three weeks from the diarrhea which was induced. The fact that recovery took place in a man of eighty-five years is also of interest.—*The Therapeutic Gazette*.

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#### HIGH ALTITUDES AND DIABETES.

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Dutoit mentions the clinical fact that high altitudes exert a favorable influence on diabetes and adds that thus far no satisfactory explanation of this sequence has been forthcoming. One authority attributed the benefit to chalybeate waters (at St. Moritz), while others give the credit simply to physical exercise and out-of-door life. The assertion has been advanced that mountain dwellers do not suffer from diabetes, and statistics show that in the mountain cantons of Switzerland the number of deaths from diabetes is much below the average. Recently Hoessli and Wanner have each seen in this phenomenon evidence that the rarefied air is a stimulant of carbohydrate oxidation. Hoessli saw a complete recovery of a patient with chronic diabetes. It does not appear that any diabetes have yet been submitted to calorimetric tests, but high altitudes are known to bring about increased oxygen consumption and carbon dioxide elimination.—*Deutsche medizinische Wochenschrift*.



ASTHMA, TREATMENT OF BRONCHIAL.

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The use of epinephrin in a fine spray, to be inhaled by the patient, is advocated by the author in asthma. He has devised a small atomizer, suitable for carrying around in the pocket, and with which the patient can arrest a paroxysm whenever he feels it coming on. The ordinary 1:1000 solution of epinephrin is placed in the atomizer, and upon pressing the bulb is broken up into a spray so fine that it can be driven through a narrow tube coiled on itself. This fine division is essential, if the remedy is directly to reach the bronchioles, which it tends to dilate. In established severe attacks, the following combination is recommended: Epinephrin solution, 9 c.c.; atropine sulphate, 0.01 gm.; cocaine hydrochloride, 0.025 gm.; distilled water, 1 c.c. No ill effects were ever observed from the spray. The action of epinephrin thus administered appeared to be of greater duration than where larger amounts were injected hypodermically. The intervals between attacks were prolonged and the attacks themselves rendered less severe.—*Monthly Cyclopaedia*.

# Editorial

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**PUBLISHER'S NOTICE**—The Journal is published in monthly numbers of 48 pages at \$1.00 a year, to be always paid in advance.

All bills for advertisements to be paid quarterly, after the first insertion of the quarter.

Business communications, remittances by mail, either by money order, draft, or registered letter, should be addressed to the Business manager, C. S. Briggs, M. D. corner Summer and Union Streets, Nashville, Tenn.

All communications for the Journal, books for review, exchanges, etc., should be addressed to the Editor.

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## EUGENICS.

The study of eugenics is becoming more widespread, the fight against immorality and the White Slave Traffic more aggressive. We naturally wonder what will be the result, inasmuch as any steps tending to prevent marriage will naturally add to the difficulty in abolishing the White Slave evil. In view of the high cost of living, marriage is difficult enough now for the average young man. The health certificate will add to the present difficulties and the ranks of those that help support the White Slave traffic will increase in almost direct ratio to the number refused marriage on account of disease.

As physician and student of sociology we can see the wonderful fruits of eugenics almost as if they were already ripened, but as students of human nature and as moralists we fear the good produced along the one line will result in concomitant evil along the other. In other words the man who is refused marriage because of syphilis, tuberculosis or what not, will often enter upon a life wholly contrary to his nature so long as he felt that some day he could marry.

Eugenics can and should be applied in prisons and optionally in society. The habitual criminal should have a vasectomy or salpingectomy performed, which, of course, will not prevent later marriage. The mentally or physically diseased man applying for a marriage certificate should, in the presence of his fiancée, or better, through a physician in touch with both of them, have a

vasectomy proposed, but we hardly think the State has a right to compel such an operation and in lieu of it refuse marriage.

Likewise, women suffering from any mental disease or any disease or condition which might render child bearing difficult, dangerous or impossible, should be given the opportunity after full knowledge to have an operation producing artificial sterility performed. Here is an opportunity for the husband-to-be to show his love and devotion by insisting on his having the operation in order to save his wife the danger, which indeed is really greater for the woman than the man.

In any event the operation, whether compulsory or optional, should be paid for by the State inasmuch as the State will be the beneficiary in the end.

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#### A TIMELY GIFT.

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The recent gift of \$1,000,000 to the Vanderbilt Medical School by the great philanthropist, Andrew Carnegie, was, to say the least, timely. Since its separation from the University of Nashville Medical Department, the Vanderbilt Medical School has struggled manfully, and successfully, too, to maintain its position among the best schools in the country. The fight has been hard and was becoming more and more serious, the outcome more and more dubious, as the standards were annually raised by the American Association of Medical Colleges. These standards had already reached the point where Vanderbilt could reach them only by tiptoeing, and so it was merely a question of time before the strain would tell and the Vanderbilt Medical School, without endowment, would have to join the ranks of those school which have been but are no more. This strained position became even more serious and the outcome even more dubious when the University of the South announced the reopening of their medical department with the required quota of full time professors and ample endowment to insure a class A school. And though we have great faith in Vanderbilt—her chancellor and medical faculty—we would not have dared predict her prosperous future



against such odds. However, this timely gift of Mr. Carnegie removes the strain and we are sure that the future will but show that the Vanderbilt Medical School has attained that which she has always deserved. And in view of this gift we can not help but feel that another medical school in this city is superfluous and ill-advised to say the least.

Since writing the above, announcement has been made that the University of the South will abandon the idea of opening a medical school.

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DR. TOM A. WILLIAMS.

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Our esteemed contributor, Dr. Tom A. Williams, sails June 28 to attend the meetings of the British Medical Association and the International Medical Congress. His address will be, while in London, Royal Society Club, St. James W, where he will be glad to receive friends. The Journal hopes to hear from him while he is abroad.

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W. B. Saunders Co., publishers of Philadelphia and London, have issued another edition (17th) of their handsome illustrated catalogue. In going through this edition we find it describes nine new books and ten new editions, not described in the previous issue. These new books are of great interest to the medical man, because they treat of subjects being daily discussed in medical circles. Any physician can get a copy of the Saunders' catalogue by dropping a line to these publishers. A copy should have a place on the desk of every physician, because it is most valuable as a reference work of modern medical literature. Send to Saunders today for a copy.

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DENTAL INTERNE (MALE).

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The United States Civil Service Commission announces an open competitive examination for dental interne, for men only, on June 4, 1913, at the places mentioned in the list printed hereon. From the register of eligibles resulting from this examination certification will be made to fill a vacancy in this position at \$600

per annum, with maintenance, in the Government Hospital for the Insane, Washington, D. C., and vacancies as they may occur in positions requiring similar qualifications, unless it is found to be in the interest of the service to fill any vacancy by reinstatement, transfer, or promotion.

The Department states that it reserves the right to terminate the appointment at the expiration of one year of service if it is deemed advisable to do so.

As no applications were filed for the examination for this position announced to be held on April 2, 1913, qualified persons are urged to enter this examination.

In addition to the many interesting cases presented, the dental interne is given an excellent opportunity for study and for doing experimental and research work in the pathological, histological, and other laboratories of the institution.

Competitors will be examined in the following subjects, which will have the relative weights indicated:

<i>Subjects</i>	<i>Weights</i>
1. Letter writing (the subject matter on a topic relative to the practice of dentistry)-----	5
2. Anatomy and physiology (general questions on these branches, also with special reference to the teeth, mouth, and head)-----	10
3. Chemistry, materia medica, and therapeutics (the preparation, properties, and reactions of chemicals, crude drugs and their preparations, their action and application, with those of other therapeutic agencies)----	15
4. Dental pathology and oral surgery (the morbid processes incident to diseases and injuries of the teeth, mouth, and contingent structures, and their surgical treatment) -----	20
5. Operative and prosthetic dentistry (the detailed techniques of general and special operative and laboratory work) -----	25
6. Bacteriology, histology, and hygiene (the cultivation, isolation, demonstration of bacteria, the principles of	

sterilization, mounting specimens, use of microscope, the principles of general and oral hygiene, etc.) -----	10
7. Orthodontia (local and constitutional irregularities in growth and development of the teeth, and their cor- rection) -----	15
Total -----	100

Applicants are required to be graduates of regularly incorporated dental colleges, and applications will not be accepted from persons who have been graduates more than two years.

Statements as to training, experience, and fitness are accepted subject to verification.

Applicants' must be unmarried.

Age, 20 years or over on the date of the examination.

This examination is open to all male citizens of the United States who meet the requirements.

Persons who meet the requirements and desire this examination should at once apply either to the United States Civil Service Commission, Washington, D. C., or to the secretary of the board of examiners at any place mentioned in the list printed hereon, for application and examination Form 1312. No application will be accepted unless properly executed and filed with the Commission at Washington. In applying for this examination the exact title as given at the head of this announcement should be used.

As examination papers are shipped direct from the Commission to the places of examination, it is necessary that applications be received in ample time to arrange for the examination desired at the place indicated by the applicant. The Commission will therefore arrange to examine any applicant whose application is received in time to permit the shipment of the necessary papers.

Issued April 29, 1913.

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#### THE PANAMA-PACIFIC INTERNATIONAL EXPOSITION.

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The Panama-Pacific International Exposition at San Francisco in 1913 will display in a most comprehensive manner the



achievements and activities of mankind during the last decade. Live, working exhibits are especially desirable, showing not only actual products, but also models in operation to illustrate the apparatus and methods employed in arriving at the finished article. In the domain of Liberal Arts the exhibits will be notably interesting and significant.

The wonderful developments in Medicine and Surgery make certain a display of the highest importance and which will be of great benefit to the human family. The mechanical side of surgery will be represented by a complete collection of instruments and appliances used in this important field of human endeavor. There will be shown the most intelligent modern methods employed in the prevention and mitigation of the ills which beset mankind.

These exhibits will be housed in the Palace of Liberal Arts. The exhibits must of necessity be selective in character because of the comparative limitation of space which, by reason of wider participation and the world's more extended productivity, will be more restricted than at previous International Expositions. This will emphasize the advisability of applying for exhibit space as soon as possible.

We should be pleased to know that you will give serious consideration to the desirability of your participation. In this connection permit me to call your attention to the keen interest manifested by both American exhibitors and Foreign Governments, which assures an exposition of the most representative international character. Latin America and the Orient will take very prominent parts. Twenty-six foreign countries have already accepted the invitation of the President of the United States to participate, and thirty states have also accepted.

The opening of the Panama Canal means the development of entirely new avenues of commerce, the extent of which it is impossible to overestimate. The Orient and Latin America should prove large and profitable markets for the appliances and equipment of Medicine and Surgery, and the Universal Exposition at San Francisco in 1915 will afford a rare opportunity to bring your products to their particular notice.

Blank applications for space, the exhibits classification and other information prepared for the guidance of exhibitors, will be forwarded on request.

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The Travel Study Tour of American Physicians to the Seventeenth International Congress of Medicine will sail from New York on July 3, on the North German Lloyd steamship "Bremen". About 75 physicians will participate in this tour, the chairman of which is Dr. W. B. DeGarmo, New York City; Secretary, Dr. Richard Kovacs, 236 East 69th St., New York. In cooperation with the International Committee of Postgraduate Medical Education, arrangements have been made to visit clinics and hospitals at Paris, Munich, Vienna, Dresden, Berlin, Cologne, Brussels, etc., and inspect the health resorts of Carlsbad, Marienbad, Nauheim, Homburg, Wiesbaden. No American party ever enjoyed similar privileges. The party will finally attend the International Congress of Medicine August 6 to 12, in London.

## Reviews and Book Notices

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The Narcotic Drug Diseases and Allied Ailments—Pathology, Pathogenesis and Treatment. By George E. Pettey, M. D., Memphis, Tennessee. Member Memphis and Shelby County Society, Tennessee State Medical Association, Tri-State Medical Association of Mississippi, Arkansas and Tennessee; Also Mississippi Valley Medical Association and of the American Society for the Study of Alcohol and Narcotic Diseases. Illustrated. Philadelphia, F. A. Davis Co., Publishers, 1913.

We take great pleasure in commending to our readers this important handbook by a well known Tennessee authority upon drug addiction. It is a practical, well prepared treatise based upon a large practice extending over many years in the treatment of the habitues of drug addiction and will certainly prove of great assistance to all who avail themselves of the instruction the work offers. The vital and essential principles of the treatment advocated is elimination. We predict that the excellence of this book will procure for it a favorable reception from the profession.

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The Surgical Clinics of John B. Murphy, M.D., at Mercy Hospital, Chicago. April 1913. Published Bi-Monthly by W. B. Saunders Co., Philadelphia and London.

We acknowledge with thanks to the publishers the receipt of this number 2 Vol. II of this most interesting publication. As a source of up-to-date information on advanced surgical procedures this serial publication has no equal. The conception of the plan by the publishers and the execution of the work by the distinguished surgeon places the profession under a debt of gratitude to all concerned in the production of these collections. The contents of this number show a rich collection of subjects. As an additional item of interest to the usual number of operations may be mentioned a talk on Gastric Ulcer, by Robert Milne, F. R. C. S., London. We urge upon all interested in surgical matters to subscribe to this invaluable series.



Medical and Surgical Reports of the Boston City Hospital. Sixteenth Series. Edited by George H. Monks, M.D., George G. Sears, M.D., and F. B. Mallory, M.D. Boston, Published by the Trustees. 1913.

This valuable collection of scientific papers contributed by members of the hospital staff is the first that has been published since 1905. The book contains thirty-two papers on subjects pertaining to important points in every branch of medicine, and the articles in every instance stand for the most advanced views in progressive medicine. The work is a most valuable contribution and is well worthy of careful study.

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## Publisher's Department

"Elixir Saloform Comp., Flexner." Contains 20% alcohol. An efficient remedy for rheumatism, gout, cystitis and uric acid solvent. Prepared for physicians' prescriptions only. Robinson-Pettet Co., incorporated. (See advertisement in this issue.)

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### GLYCO-THYMOLINE.

Most all drugs have at one time or another been used in the effort to bring comfort and relief to the patient suffering from general pruritis.

It is generally conceded that lotions are perhaps the most efficacious and least "messy" way of applying the medicants.

Glyco-Thymoline is particularly a happy choice of the physician in his efforts to abate this most aggravating condition. The cooling, soothing and anæsthetic properties of this preparation used especially in those cases due to exposure to the inclement weather or to a gouty diathesis, give almost immediate relief from the burning and itching, thus conserving the patient's comfort, while at the same time a continuance of the treatment tends to bring about an ultimate cure.

The Glyco-Thymoline should be used full strength. In local cases a good way is to keep a soft cloth moistened with Glyco-Thymoline applied to the parts. This is almost certain of good results.

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# NASHVILLE JOURNAL — OF — MEDICINE AND SURGERY

CHARLES S. BRIGGS, A. M., M. D., Editor

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VOL. CVII.

JULY, 1913.

No. 7.

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## Original Communications

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### MEDICAL EDUCATION FROM A PRACTITIONERS VIEWPOINT.

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By R. A. GRAINGER, M.D., Paris, Tenn.

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The volume of definite and comparatively complete knowledge which we now have, when fifty years ago we had only surmise and inference, manifests the advance in medicine. The most forceful and far-reaching of this is of cause and fundamental, giving a deeper and broader grasp of the health and life destroying forces and the modes and means best suited to combat and destroy them. These truths have been revealed by the laboratory and their verity, as the direct and specific cause of disease, demonstrated time after time, so plainly and convincingly that we are as confident that typhoid fever, tuberculosis and other diseases producing germs are as certainly the growth and development of the previous generation of their respective species as we are that the plant, fruit or animal is; and also that each species cause in the human body when they gain entrance in sufficient numbers or of the full measure of their virulence, definite physical states peculiar to themselves. Much of this was not known by the strongest and most renowned of the medical profession fifty years ago, and the revelation of these important fundamental truths is so brilliant in the strength, breadth and depth of reach as directing efforts to shield and promote health, as well as to soothe and relieve, that the efforts in other directions, that can not reveal truths of the same



magnitude of importance of general application, have in a degree been overlooked and prevented a knowledge of the important and helpful knowledge of the well directed efforts of carefully studying clinical history, the phenomena distinctive of each special ailment, to sink much below the plane of important strength and capacity, giving knowledge which is their due.

The laboratory and its delicate instruments of precision and magnifying power that brings the powerful force and great activity, beyond the reach of men's natural field of vision within this field so plainly that each species have been revealed individually, its life cycle, conditions that promote its growth and those impairing and destroying, etc., is worthy the greatest regard as well as all effort to acquire or impart the knowledge of method and means that gives the ability to direct laboratory methods so perfectly and well that the laboratory may be able to reveal any truth or its application that is within the reach of it and its methods.

Still the fact remains, and will for many years yet, that the general practitioner of medicine is of strength and capacity in direct ratio to his power to perceive and correctly interpret phenomena. His ability to perceive promptly and correctly the deflected, subdued, and largely over-shadowed, as well as the prominent and the bold, the usual and the unusual phenomena of ailments, has been, and will continue to be, the measure of his strength, and gives the ability to direct and apply the best course and specific means as a complete knowledge of cause and effect would demand.

The general practitioner of strength has not the time and usually is without the means of applying laboratory methods and must act in many cases before he could secure a report of laboratory findings. He should be able in the large number of cases to feel the comfort of having his opinion confirmed by the court of last resort.

To me, from my obscure viewpoint and the limited horizon of my field of vision, I am apprehensive of retrograde in some phases of strength in the profession. I doubt if that strength and capacity to observe and interpret the phenomena manifest by

disease in men is as great in the graduate of today as those of the not distant past. If this be true, there must be some defect in the advanced methods or in the teaching force.

I had rather think the defect is of method and from imperfect and incomplete observation. Two elements that in my opinion impede the growth and development in strength and capacity of medical students appear, each of magnitude of importance and force.

In our educational system from the day the child enters the primary school, and with the medical student until he has finished his medical course and passed the state examining board, the examination by which his qualification for fitness to pass to higher grade, receives his diploma, or the legal right to practice his profession, is presented to his mind in degree of importance that inspires the desire and effort to meet the requirements of the examining boards; and the strength of his being is the measure of his effort to memorize what is said by teachers and authors of matters upon which he will be examined, with little thought of the underlying principles. And he gains little strength from his efforts, remembering and quoting much as he would dates.

Then the medical curriculum is so deep and broad in its comprehension that it can not be grasped in strength giving degree in less than a life time by ordinary men. The majority of medical students are ordinary men, and it seems a dissipation of strength to require them to grasp so much. The effort to concentrate the teaching centers seems well and strength giving, but it is not more so than the concentration of effort of the student to comprehend. Only that which we know well gives the full measure of strength, and however broad the culture, it is strength and capacity giving as it is comprehensive of minute detail.

He that has spent his student days in gaining a knowledge of the minute detail of a small part of the circle will spend his time in going from minute detail to other minute details of parts of the circle; whereas, as those whose student life has been spent in gaining a general, but superficial, knowledge of the circle are likely never to know the minute details of any part of the circle.

As the majority of medical students must become general practi-

tioners and as his strength and capacity is very largely the measure of his ability to perceive and correctly interpret phenomena, it would seem better to have him devote his effort to the principal branches of medicine until he acquires a good knowledge of enough of the minute detail to appreciate the value of this knowledge and acquired the habit of close, careful study and observation of phenomena and the love for this knowledge thus gained, while those strong enough to comprehend and gain a knowledge of the underlying laws or principles in all subjects now included, or that may be included in the future, should have freedom to go as deep and broad as their strength enables them to gain strength giving knowledge.

My experience and limited observation inspires the apprehension or the impression, that is not a firm conviction, still approaches such, that the centers of medical education have and are sacrificing strength giving effort and knowledge for breadth of culture and superficial knowledge that gives little strength or capacity.

To me it appears that the fruit of the expanded curriculum and advanced method with extended time to finish the course is short enough of the full measure, of the perfect fruit, to inspire a doubt or apprehension that individual weakness is a mere common trait in the rank and file in the general practitioners of today than of fifty years ago. The expanse of curriculum has been too great and too generally applied. Few can comprehend enough of so much that is intricate and complex in the time required to finish the medical course. More concentration of effort, more knowledge of minute detail, of a few subjects would likely give greater individual thought than the broad general knowledge which can but be superficial.



## Selected Articles

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### THE NECESSITY FOR ACCURATE PRE-OPERATIVE DIAGNOSIS AND THE METHODS TO BE EM- PLOYED IN INTRA-ABDOMINAL LESIONS.

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HERMAN E. HAYD, M.D., M.R.C.S. (Eng.) Buffalo.

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Accurate diagnosis for the proper treatment of any disease is of the greatest importance, and especially so when we are considering lesions which involve the abdominal organs, where operative undertaking, no matter how trivial, are often matters of the gravest responsibility, not only because life is in jeopardy, but because of the resulting adhesions, which are often consequent upon the opening of the peritoneal cavity. Again, if certain acute fulminating inflammations are not quickly and properly interpreted, a few hours' delay might be the cause of a fatal termination, no matter how carefully or how judiciously the necessary operation was conducted, or certain complications might result from delay in properly diagnosing the case so as to render a simple and comparatively safe surgical undertaking exceedingly dangerous and hazardous. There is practically no mortality incident to modern surgery when skillfully and scientifically executed, but post-operative adhesions, with all their painful and dangerous complications and consequences, their associated distress, future suffering and disability, make the conscientious surgeon hesitate in recommending operative procedures, unless a recognizable pathology of serious possibilities is present, or symptoms which render life miserable or seriously disturb the functions of one or more organs, either, because they are directly involved, or by reason of intimate reflex association.

I shall not attempt to discuss in this paper tonight the symptomatology of the many lesions which can exist in the abdominal cavity, nor of the treatment and surgery which such diseased

conditions call for, but only in a very general way develop a few of the important points which must be relied upon to establish a correct diagnosis, and incidentally to bring out a few of the strong and salient features which, when considered, are of inestimable value in building up a clinical picture, and, above all, to impress upon you, that in my experience time and patient study are the two requisites necessary to get this information. Errors in diagnosis are often made, but most frequently, not from want of knowledge on the part of the attending surgeon, but from carelessness and haste in arriving at conclusions.

First of all, a careful history must be taken, and it is easiest and best to listen patiently to all the person wishes to divest himself of, and then proceed to a physical examination, not only of the organ, but organs, which are in the main responsible for the symptoms the patient suffers from, as well as the body in general. The examination is usually best made with the patient lying on the back, and the examiner's hands should be warm and the sufferer should be made as comfortable as possible. First, the upper abdomen should be carefully palpated, and any points of undue prominence must be noted and areas of pain or tenderness or resistance or fluctuation. The hand should be pressed deeply into the right and left flanks, and the kidney carefully palpated. The edge of the liver should be felt for, and its area percussed for lessened or increased dullness. The stomach should be outlined, when such a course is thought necessary, by giving the patient a teaspoonful of bicarbonate of soda in a glass of water, and follow this immediately by a teaspoonful of tartaric acid dissolved in a like amount of water, or the organ may be distended by air from a Davidson syringe. The colon and vermiform appendix are then palpated, and the sigmoid flexure and colon examined for faecal accumulations and growths, and then a careful vaginal examinations should be made by touch and inspection. The color of the vagina should be observed, and the presence of discharge, or other evidences of irritation about the labia or clitoris should be looked for. Changes in the position of the uterus and peculiarities of form, size and consistence of the organ should be studied, and alterations in sensibility recognized,

and inflammatory masses or adventitious growths felt for—Kelly. The pelvic organs and rectum should be examined by the index finger or two fingers, to note every possible deviation from health, and supplemented by a careful bi-manual examination. Often the patient should be placed in the knee-elbow position, and with instruments of precision the bladder and rectum should be carefully inspected under electric illumination, or by the head glass with reflected light; in fact, everything known to modern medicine and surgery should be employed to get as perfect a clinical picture as is possible. Pain is, perhaps, the most important symptom which causes a sufferer to seek relief, and it may be the result of some existing inflammatory condition in one of the abdominal viscera, or it may be due to some peripheral irritation, or be dependent upon some systematic infection or constitutional dyscrasia as gout, lithæmia, malaria, plubism and certain anæmias. Dyspeptic phenomena, loss of appetite, distress after eating, pain and even excruciating agony, such as is seen in lead colic, bowel disturbances, loss of general nutrition and strength are symptoms common to many intra-abdominal diseases, and they may also be simply expressions of some irritative condition altogether outside of the peritoneal cavity, as the gastric crises of locomotor ataxia, and thus their causes must be carefully studied lest grave mistakes result from various operative undertakings, which would, perhaps, be justifiable were the symptoms clearly dependent upon an intra-abdominal lesion.

Acute conditions, such as gastric and duodenal perforations, acute gangrene with perforation of the gall bladder, acute gangrenous appendicitis, acute pancreatitis, acute thrombosis of the mesentery, typhoid perforation, and extra-uterine pregnancy, in fact, rupture of any of the viscera, are among the catastrophies which call for immediate and heroic surgery, and mistakes in diagnosis will of necessity be frequent, because such conditions can not be leisurely studied, nor can time be given in order to obtain the valuable assistance which comes from a careful physical examination of the patient, as well as the added information which can be gotten from thoroughly scientific chemical and laboratory findings, and then, above all, the patient is so desperately



ill and so full of pain and suffering that a satisfactory physical examination is impossible. It is, however, in this cataclysmic class of cases where the history of the attack is of the greatest importance, and upon it a diagnosis can often be made, and the great triumphs of modern surgery accomplished. In the elucidation and differentiation of the more common intra-abdominal maladies, especially where there is a history of chronicity, the value of the anamnesis can not be over-estimated, and perhaps nowhere is this more strikingly illustrated than in gastric and duodenal ulcer, cholelithiasis and appendicitis, diseases which have so many common symptoms and yet certain characteristic signs, which are peculiarly their own. In all, there is a history of stomach distress, perhaps pain, of previous dyspepsia, fullness and weight after eating, eructations of gas, belching and sour stomach, loss of weight and general physical strength.

Pain is the significant landmark, and with ulcer, peptic or duodenal, it is peculiar in that it comes on after eating in from two to five hours, according to the situation of the ulcer. It is circumscribed to the region of the navel. At first it may be complained of only after a hearty meal, or after one meal, and then it becomes evident after each meal. It may persist for days, or even months and years, and then comes a period of quiescence: in fact, this cycle of alternating attack and interval of relief is peculiarly and forcibly the history of ulcer, and remains so unless the ulcer is permanently healed or makes for itself adhesions to other structures, when a symptom complex is added, due to the new involvement and perhaps malignancy. The pain of cholecystitis differs from ulcer in that it is sudden and severe. It has a wider field of radiation. It comes with no regularity as to time. It is rarely caused by food, and it is rarely eased by it. Nor does the patient trace his distress to it. The pain is not gnawing, boring and burning in character, as in ulcer, nor is it relieved by food, hot drinks or alkalines, as in ulcer; nor by vomiting or irrigation which relieves the acid-offending materials of ulcer—Graham. The direction of the pain is a matter of great diagnostic importance and value. The pain of ulcer of the stomach does not radiate. It is central and in the pit of the stomach,

while that of gallstones extends over a larger surface and radiates even to the right or left shoulder blade. The pain of nephritic stone runs down the sides following the course of the ureter into the testicle and head of the penis, while that of appendicitis, which although at first is epigastric, soon locates itself in the lower right quadrant and then often extends down the anterior part of the leg, following the course of the interior crural nerve and its branches. Then, too, the manner in which the subsequent symptoms follow the initial pain is so clear-cut and incisive that a diagnosis can be made with almost unerring certainty. For example, in acute appendicitis, pain is first, often acute and lancinating, then nausea and vomiting, local sensitiveness and spasm of muscle, elevation of temperature and an increase in the number of leukocytes—and this is the uniform order of their appearance. These facts are especially important in differentiating acute appendicitis from lobar pneumonia and diaphragmatic pleurisy, where pain follows the fever and other symptoms of constitutional disturbance. However, in children mistakes in diagnosis are not uncommon, and all of us have perhaps more than once opened the belly in a child and found the appendix normal, and on the following day found the symptoms and signs of a well-marked pneumonia. Of course, the value of the anamnesis depends to some extent upon the degree of intelligence of the patient, who is being investigated, but I am sure more often upon the patience and tact of the man who is doing the investigating. Leading questions must not be asked, and children and nervous persons must be quietly and kindly dealt with, and it is often surprising to see what valuable information they give and here and there suggest a sign or symptom which the astute surgeon can follow up and elaborate, and thus complete a diagnosis. Unfortunately, all of the inflammatory diseases of the upper right quadrant become complicated by associated adhesions and extensions, and then a differential diagnosis often can only be made by an exploratory laparotomy, and then the surety of relief must be left to comprehensive surgery.

Next in importance to careful history-making is the physical examination of the patient. Nature in her effort to protect her-

self produces spasm of muscle, and, therefore, all inflammatory lesions have pain upon pressure and fixity and rigidity of muscle over the part involved. This pain and tenderness may be very acute, and especially so where the trouble is not too deep-seated. Sometimes, owing to great nervous susceptibility and inability of the patient to relax, an anæsthetic must be administered or a hot bath to make the examination sufficiently complete and thorough, and this is especially so for certain pelvic conditions where long, fragile adhesions are present which permit considerable motility and movability of the organs, but yet excursions not great enough to enable them to normally perform their functions, or adhesions and contractures of tissue and structures may exist which are not gross enough to palpate through a tense and rigid vaginal vault. Because the difficulties in diagnosis in abdominal diseases are so great—in fact, sometimes impossible—every resource of value must be at hand to assist us in solving these complex problems. Dr. Robert T. Morris of New York has given us some valuable suggestions in a paper published in the January 25, 1908, number of the *Journal of the American Medical Association*, and when carefully studied and applied often help to clear up an otherwise obscure case. He has noted that the lumbar ganglia of the sympathetic get sensitive under certain irritative and inflammatory influences, and this tenderness is reflected forwards to a point on each side of the navel. He says: "Draw a line from the right anterior superior spine of the ilium to the navel. On this line, an inch and one-half from the anterior spine we find McBurney's point. Tenderness on deep pressure at this point gives presumptive evidence of an irritative process in the vicinity of the vermiform appendix, but tenderness on superficial pressure at this point may mean irritation of sensory nerves of the abdominal wall, and this irritation may be due to causes ranging from hysteria to toxemia. If we come out on this line one and one-half inches from the navel, we get a point of definite diagnostic value, and, according to Morris—in any pelvic disease, whether tubal or ovarian, in old scars in the cervix, metritis, endometritis, piles or bladder inflammations, there will be tenderness over this point on both sides one and one-half inches from the navel.



If the appendix alone is involved, then the tender point is only on the right side. He also says that involuting appendices and those in which the organ is only congested, as from a prolapsed kidney, there will always be seen more or less marked tenderness over this Morris point, while the McBurney point may show no tenderness, even on deep pressure. When the kidneys or gall bladder are affected, there is no point of tenderness over either lumbar ganglia. Sometimes these points of tenderness are matters of great importance in eliminating the causes of many intra-abdominal symptoms when they are due to peripheral irritations, as certain eye reflexes and phorias, which often occasion all kinds of dyspeptic phenomena. Then, too, they are of value when considering the reflex dyspepsias which are seen in so-called uncomplicated retroverted uteri or prolapsed ovaries, or to the painful and tender old scars often noted in healed cervical lacerations.

I have studied these Morris points of pain and tenderness for a number of years, and although I am not prepared to go as far as he does in their constant presence with these pelvic and appendical lesions, still I have met them often enough to consider their presence as valuable diagnostic aids, and in connection with all the other many signs and symptoms of diseased conditions they simply accentuate the axiom—that to be of value they must be intelligently interpreted—because accurate diagnosis means correct observation and logical deductions.

The Murphy five diagnostic methods for examination of patients are also of great value:

First, the first percussion of the kidney, which is used to determine the presence or absence of an acute pathological condition within that organ. The patient with clothing removed above the waist is seated in an upright position on a stool, and is then instructed to bend forward as far as possible, and while in this position the examiner's left hand is pressed firmly upon the back, and the right clenched hand is brought down with considerable force upon the dorsum of the left hand, when the patient will cry out with pain if there be an acute infection, infarction or retension in the pelvis of the kidney or stone or ureteral obstruction, because any organ under tension will make pain when suddenly struck.

His second method is used in acute infections of the gall bladder or acute obstruction of the cystic or common duct, with or without infection. The examiner sitting at the right side of the recumbent patient presses his left finger deeply under the costal arch at the tip of the ninth cartilage. The patient is then asked to take a deep inspiration, which forces the gall bladder below the costal guard or border, and when the flexed finger is suddenly struck with the ulnar side of the right hand, great pain is provoked. This he calls his hammer stroke percussion. The third method—which is used also for gall bladder examinations—is called the deep grip palpation, which is simply squeezing the tender gall bladder up against the diaphragm as it descends with each inspiratory effort. A fourth is the piano percussion to demonstrate small quantities of fluid and exudate in the abdominal cavity, and is simply tapping the abdominal wall with the tips of the four fingers, one after the other, commencing with the index finger; and a fifth method—the simultaneous palpation of both iliac fossa for suspected acute appendical involvement.

Intra peritoneal conditions often manifest themselves in swellings and growths, and these masses may be painful and tender, or without any special sensibility. They may be movable or fixed, and in some cases they wander about the abdominal cavity swinging upon their stretched-out pedicles. They can in most cases be felt by careful palpation, if the patient be placed in various positions which relax superimposed organs or tense muscles. In thin subjects their outline can be carefully and thoroughly studied, but if the person be very fat, often this physical disproportion makes a careful examination impossible. A very important and possible complication may cause some difficulty, as when a displaced organ, as a kidney or uterus or ovary, becomes fixed in its altered position and then can easily be mistaken for some adventitious growth or a neoplasm—benign or malignant—or a hard growth lying over a large blood vessel may have such increased visible pulsation as to be easily mistaken for an aneurism. In dealing with a swelling in the abdominal cavity, the bowels should be thoroughly unloaded, and the bladder should be emptied, because many errors of diagnosis have resulted from

this want of care on the part of the examining surgeon. Phantom tumors must be thought of, and their presence can be easily demonstrated by their disappearance under an anæsthetic. Inspection of the abdomen, when done systematically, open up a vista of possibilities. Peristaltic waves may be seen coming up to a point and increasing with visible intensity and culminating in crises of pain as in volvulus and bowel obstruction. Swellings in certain regions which commenced on one side or were first observed by the patient in the median line help in differentiating uterine and ovarian tumors, and even hydro-nephroses and occasional, although rare, echinococcic cysts of the liver.

Laboratory methods as employed by every capable and scientific surgeon are, of course, of great value, but often their importance is exaggerated, and in my judgment, should only be relied upon when the other clinical symptoms accord with the findings. Increased leucocytosis and a great disproportion between the cell elements of the blood and high polymorphia percentages, iodophilia are of immense value in making a quick decision for operation, and especially when we are dealing with appendicitis, a disease which is responsible for over sixty per cent of the acute inflammations of the abdominal cavity, and one which should be practically without mortality if medical men would look upon it as a grave surgical malady from its incidence. I believe that a great many deaths in this terrible disease can be traced to the delay consequent upon medical men in trying to make the diagnosis of the danger point by blood counts and other physical and clinical symptoms. After years of patient study and a large experience in dealing with this treacherous malady, I am of the opinion that surgery should be at once resorted to in every frank case of acute appendicitis, and that sudden pain in the lower right quadrant, perhaps extending to the pit of the stomach, vomiting, with fever and rigidity of the rectus muscle establishes a diagnosis with such certainty that laboratory examinations of the blood are unnecessary, and that they lead to delay and uncertainty in the only possible treatment, which should be prompt and efficient surgery.



In a more complicated condition, as when an appendicitis becomes engrafted upon a pelvic inflammation, when, for example, the patient is a woman who has been in bed for a week or more with peritonitis from tubal or ovarian involvement, or in a woman who has previously suffered from a pelvic inflammation, with masses which fill both lateral vaginal vaults, a blood count is of the greatest importance, and gives the surgeon a great sense of comfort and security. Here a sudden accession of pain in the right side, with increased leucocytosis and a high percentage of polymorphous nuclear cells, makes an operation imperative, because the pathological condition has changed and there has been added an acute appendicitis, perhaps by extension, and with it the dangers of rupture and a rapidly spreading fatal peritonitis, a complication which is not imminent in the course of simple tubal and ovarian pathology.

Appendicitis should always be operated early, because one can not tell which attack or which person will develop pus, and so strongly does Murphy feel on this question, that I shall quote him from his August, 1912, *Surgical Clinics*. He says "that every case of appendicitis that is operated in which pus is found outside of the appendix at the time of operation has, in the presence of that pus, irrefutable evidence that the case was badly managed up to that time."

Laboratory examinations and chemical tests of the gastric contents are also of some value, but I am satisfied that many cases of ulcer of the stomach and duodenum have gone into an unoperable stage by delay, in trusting too much to simple chemistry, and that cancer—over 50 per cent—Mayo—so frequently engrafted upon old ulcer areas, has progressed beyond operative limits by diet, tentative and medical treatment, and often under the conservative counsels of the distinguished gastrologists. An absence of free HCl and an increase in the amount of lactic acid and the presence of the Boaz bacilli is only presumptive evidence of cancer, and so an increase in free HCl and high combined acids may exist, and yet the case be one of old ulcer, and upon a certain part of it cancer has been engrafted. Therefore, these useful and scientific methods of examination must carry with

them the weight of conviction only when the clinical coincides with their possible sequences.

Microscopical examinations of the urine are of the greatest importance, and in a certain class of cases they establish the diagnosis. In ureteral inflammations and pyelitis, clumping of pus cells and the recognition of epithelial shedding from the pelvis of the kidney often clears up the cause of certain obscure septic symptoms. Cystoscopic examinations of the bladder and ureteral catheterization are also of great value, and particularly if we believe, as Kelly does, that over 60 per cent of those cases of ill-defined right-sided pain are due to some trouble in the kidney, and usually a displacement, with a kinking of the ureter and retention of urine in the renal pelvis. Backache, which is also a common symptom in women, Kelly says, is more often due to anæmia and neurasthenia than to uterine and pelvic diseases. However, a retroverted uterus, with its associated endometritis, or a large and tender tube or ovary, varicosities of the broad ligament, or a tender, deflected coccyx, or a painful fissure of the rectum, or ulcer or piles must be looked upon as very common causes of backache and prolonged ill health in women; and varicocele, painful, tender and hyper-æsthetic areas in the male urethra, strictures of large calibre often cause very distressing backache in men.

The presence of albumen and casts in surgical cases must not be treated too lightly, nor should their presence be taken too seriously, and especially so when the sphygmomanometer shows no increased blood pressure. High blood pressure readings, with the discharge of large amounts of urine, or even with diminished secretion of urine, with perhaps only a trace of albumen, are of infinitely greater importance in establishing the surgical risk of any operative cases.

Blood in the stools is of great value. In making a diagnosis in obscure abdominal conditions the presence of macroscopic or microscopic blood may be confirmatory in a suspected condition of hemorrhage into the gastro-intestinal tract. The history of tarry stools, accompanied by symptoms of gastric or duodenal disturbance, may be enough to establish a diagnosis of a gastric

or duodenal ulcer. A passage of bright blood would point to ulceration lower down. The chemical test for blood in the stools, the so-called "occult blood" would have no value unless proper precautions were taken to place the patient upon a diet devoid of blood pigments. Blood upon the outside of perfectly formed stools comes from the rectum or anus. If evenly distributed through the feces and of a brown or black color, the blood undoubtedly comes from the small intestines. However, when weighing the evidence of the examination of blood in the feces, considerable care must be exercised in excluding blood in the gastro-intestinal tract from other sources, as the mouth, nose, throat and lungs. And equal care must also be taken in the prevention of any admixture of blood from the vagina during a normal defecation.

The X-ray is also a valuable means in diagnosing intra-abdominal lesions. In the control of fractures and dislocations the ray has attained its highest degree of perfection, and certainly no surgeon today thinks of caring for a fracture or dislocation without its aid, and it is a question whether he would not lay himself open to a charge of negligence if he essayed to practice surgery without it. In urological conditions it vies with the cystoscope in brilliantly illuminating the kidney, ureter and bladder, so that stones, malignant growth and even ureteral kinks can be detected. We can also examine the soft structures with precision and with carefully applied bismuth tests. Visceral ptoses and intestinal twists can be mapped out; pyloric growths, stenosis and adhesions can often be satisfactorily delineated, and by its scientific use and correct interpretation, hysteria and functional diseases and other causes of ill-health and suffering have often been eliminated because of a definite and easily seen pathology present to account for the symptoms. However, one must not forget that even the X-ray has its limitation, and that grave errors can be made in demanding from the radiologist what the skiagraph, the fluoroscope and even the photograph can not reveal, owing to the transparent and translucent character of the products of irritation. Indeed, certain kinds of gall stones, and even nephritic stones, are not dense enough to show a shadow, and



shadows are often made by other conditions which even the skilled radiologist can not explain, and thus great care and often much experience is required in properly interpreting even very excellent plates, and many must be made from different angles to get at different conditions.

The various tuberculin tests and reactions must be made, as well as the Wasserman, and above all these tests and valuable aids in diagnosis must be considered with common sense and judgment.

Many surgical errors are committed every day by well-qualified and scientific men who have a superabundance of theory and laboratory knowledge, but they lack the practical application of a few good surgical principles—in fact, they need a little horse sense. Much worse, however, is the position of some, so-called surgeons, ignorant, selfish and unscrupulous men, whose lack of knowledge and shameful paucity of every qualification which is necessary to equip one to be a surgeon and a diagnostician to properly discharge the serious responsibilities of his calling. He may be able to cut well, and he may know the technique of aseptic surgery so that his mortality, even in grave surgical undertakings, may be surprisingly low, yet I believe that I am voicing the sentiments of all of you when I say that it is he who is responsible for most of the unnecessary and mutilating operations which a long-suffering and abused public is justly and righteously rebuking today.—*Buffalo Med. and Surg. Journal*.

THE METHOD AND PURPOSE OF DECHLORINATION  
IN NEPHRITIS.

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By PROF. DR. H. STRAUSS, Berlin

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Before we occupy ourselves with the practical standpoints of dechlorination, I beg permission for a few introductory observations on the physiology and pathology of sodium chlorid metabolism. I will thereby be brief and refer you for details to the paper recently read by me at the Hygienic Congress in Washington, on the importance of sodium chlorid and water for the nutrition of man. Of the data which interest us in this province, the most important is probably this—that the human organism holds fast with extreme tenacity to the percentage concentration of its fluids in sodium chlorid. This is attained through a system of regulations which provides that the intake and outgo of the chlorid balance each other. In the carrying out of these regulations the kidneys stand in the first rank, and it is interesting to note how an excess of intake of the chlorid leads promptly to an increased excretion of the same by the kidneys; and how in a diminution of intake, or in an increased elimination—for example by vomiting—the kidneys depress the excretion of the chlorid, in order that the concentration of the blood serum and other fluids be maintained at about 0.6 per cent. The great importance which the kidneys possess for the constant maintenance of sodium chlorid concentration in the body fluids has already for many years given rise to the study of the behavior of the excretion of the salt in affections of the kidney. Up to a decade ago, however, it was known only that this behavior was inconstant. One held chlorid retention as indeed possible, believing, however, that this was the consequence of a primary water retention. (Marischler and others.) Of the relations between chlorid retention and the appearance of definite disease conditions in the course of renal affections, nothing however was known. In the course of investigations, which I had begun fifteen years ago in retention processes in inflammations of the kidneys, and the results of which I have submitted in a monograph, "On Chronic Nephritis and Its Influence on the Blood Serum," I originally started with the idea

that retentions of nitrogenous character must play a role in the genesis of dropsies. It was shown, however, that my presuppositions held good only in the explanation of uremia and not for dropsies. In regard to the latter my investigations led the way to a more accurate study of sodium chlorid metabolism. In the course of this I reached the conclusion that dropsy in typical cases of Bright's disease depended more or less on a nephrogenic chlorid retention, and I established on that account the indication of chlorid withdrawal in the treatment of the conditions under consideration. As a basis for this indication, I introduced the following arguments: (1) The fact that in unilateral nephritis lower values of chlorin have been found on the affected side in comparison with the sound side; (2) the clinically determinable fact that in consequence of an aggravation of the renal process in typical cases of Bright's disease, the value for the excreted sodium chlorid often falls off; (3) the fact that dropsies are especially amenable to treatment with remedies which engender not only a polyhydruria, but simultaneously a polychloruria.

As I compared the above determinations (those mentioned under 2 and 3 must be first subjected to personal investigation) with the fact that the human organism does not tolerate an increase of the percentage concentration of its fluids, I came to the conclusion that the chlorin retained through nephrogenic insufficiency held back the water, and hence the retention process masks the chlorid as such. I concluded further that retention of large amounts of "physiological saline solution" led at last to dropsy, and recommended in the latter cases on the one hand a chloric poor nutriment, and on the other a medicamentous stimulation of chlorin excretion. Two months later Widal and Javal established the same therapeutic indication by reason of other experiments; and in the meantime dechlorination cures in the treatment of dropsies of renal origin and of certain other conditions have gained a firm and permanent position. Unfortunately, however, in certain quarters the originally formulated status of indications has been obliterated; so that at times one must raise a protest against an abuse in the province under discussion. The dechlorination cure is not to be recommended as a remedy for the treatment of nephritis, but always as a method solely of dehy-



dration in definite edemas of renal origin. I have spoken of the dropsies of typical Bright's disease as objects of dechlorination and may here state more accurately which cases I include under that term; for one has to differentiate nephrogenic and cardiogenic dropsies in nephritic subjects. Under typical Bright's disease are to be comprehended those of nephritis which possess a great tendency to dropsy and are characterized by urine rich in albumin and formed elements. It is a striking fact with patients of the sort under discussion, that there is often present an inexplicable fluctuation in the intensity of the phenomena, as well as an oftentimes snow-white pallor of the integument. Dropsies of nephrogenic origin differentiate themselves from those which arise through cardiac insufficiency by the fact that they frequently begin in the face and do not follow the laws of gravity. Only those dropsies of the disease type sketched are first objects of a dechlorination treatment. In the sense of prophylaxis one may indeed in the above mentioned type of disease make use of dechlorination in the non-edematous stages; but with such an aim strict cures are indicated only when dropsy is actually threatened. In order to establish the existence of an incipient "latent" dropsy there is necessary on the one hand daily determination of body weight, and on the other hand determination of chlorin in the urine with the intake of chlorin undisturbed. The latter, one can carry out simply according to a method published by myself, which is not complicated like Esbach's determination of albumin. In a small brochure entitled "Practical Suggestions for Chlorine-Poor Diet," (Berlin, S. Karger, publisher), I have made a report on this subject, in which I have depicted fully the technical details of chlorin-poor dietetics. Dechlorination in non-dropsical cases of typical Bright's disease is in order whenever chlorin retention is demonstrated simultaneously with an increase of body weight. The latter phenomenon may be employed as an indicator for chlorin retention because the main quantity of retained chlorin is held back in the form of "sero-retention," only a small portion having become stored in the form of tissue retention.

A strict differentiation between nephrogenic and cardiogenic dropsies in nephritis seems to me to be important because in the forms due to cardiac insufficiency matters are somewhat dif-

ferent. According to my investigations similar disturbances occur in the kidneys only in maximal degrees of cardiac insufficiency. In medium degrees of the same, on the other hand, the kidneys are able to produce a urine, which in percentages, possesses a high content of sodium chlorid; and the outgo of the latter suffers only from the reduced amount of urine excreted. Hence in cases of non-maximal cardiac insufficiency there comes into question only moderately strict chlorin retention cures. That dechlorination, however, possesses significance in many cases of cardiogenic dropsy is shown by the results which can be obtained in certain instances of heart muscle insufficiency by the Karell milk cure. A chlorin-poor diet is adopted to facilitate withdrawal of fluids for the reason that thereby a poverty of nutriment in salt will restrict the thirst. On this account we esteem extraordinarily the salt-poor diet also in the treatment of diabetes insipidus and other polyurias. On the other hand it appears to me—I mention it only in passing—in regard to the question of chlorin retention, that the subject is still open.

Already in my first complete work on the subject under discussion which appeared in the May number of *Therapie der Gegenwart*, for 1903, I pointed out that dechlorination resolves itself into two elements: (1) A chlorin-poor diet and (2) a medicamentous dechlorination.

The chlorin-poor diet is in its strict form (i. e., with a sodium chlorid content of less than 2.5 gm. daily in the food) easily carried out, while in the case of the less strict form (with a maximum salt content of 5 gm. daily) great difficulties are encountered in its accomplishment. In every case, however, it is necessary to give the patients the most accurate directions in regard to the diet. As regards details, I refer to my already mentioned "Practical Suggestions for the Technique of Chlorine-poor Feeding." I will only observe here that for the most part nutriment in the raw state contains but little salt and that a higher content is for the most part present only through the preparation of food. So we find in meat foods which are ready for the table that at times a portion allotted to one person contains from 2 to 3 gm. of salt. Moreover, soups and bread often show a sodium chlorid content of from  $\frac{1}{2}$  to 1 per cent. When one considers that salt butter

contains at times 1 per cent of the same, one can calculate that many men often consume more than 7 or 8 grms. of salt in meat, bread, soups and vegetables alone. On that account in the preparation of a salt-poor diet we must exert a special degree of watchfulness on these forms of nutriment. For the same reason it is not always entirely easy to prepare a salt-poor diet in palatable form. Moreover, if one does not take enough heed of the palate of the patients, many of the latter refuse to carry through the salt-poor diet for a long period. In order to render the latter practicable one takes recourse in part to correctors of the taste, while for the rest he refrains entirely from prescribing food which will be eaten readily only after the use of salt in cooking or seasoning. In so doing, it is a pleasure to see that to the cultivated individual, in regard to his salt requirements, instructive measures are everywhere accessible. At least, one not seldom undergoes the experience that patients after a prolonged use of salt-poor food are content with an insignificant salt ration as compared with the beginning of the salt-poor regimen. Regarded from the standpoint of metabolism one can succeed completely with 2 gms. of salt—this has been shown both by ethnological and clinical experimental observations which corroborate each other; and in consequence we may designate the dose of 2 gm. of salt as the "nutrient salt ration," and the excess over the above as the "seasoning salt ration." If we wish to nourish a patient with a minimal quantity of salt we cut down the meat, which is to be administered cold, and especially with salt-poor sauces, for example, tomato sauce, mint sauce, etc. This is taken more willingly than raw meat. Soups may be readily prepared in salt-poor state from tomatoes, asparagus, cauliflower and potatoes; while fruit soups and milk soup are likewise to be recommended in abundance. But bouillon soups without salt are in general insipid. In regard to ordinary bread, we must in rigorous cures renounce it wholly and employ in its stead a bread specifically prepared by the baker for the individual case in salt-free form. Black Bread derives from carawayseed, white bread from poppy seed a certain palatability. Moreover through spreading with marmalade, white cheese, salt-free gervais cheese, salt-free herb butter and the like, a certain degree of sapidity can be secured.



Butter is to be employed only in salt-free state and when this can not be obtained, ordinary butter may be deprived of a portion of its salt by washing it with water; or instead of butter, vegetable oil may be employed. Of milk, only restricted quantities can be used in strict cures, for milk contains 1.6 gms. sodium chlorid per liter. When milk is strongly recommended in diet lists it is well to replace a part of it with cream. For the preparation of vegetables salt water must be renounced; the necessary sapidity should be secured through addition of suitable herbs and sauces, and in any case by addition of moderate quantities of Valentine's Meat Juice, which contains but an insignificant content of sodium chlorid. I have repeatedly made use of small doses of sodium bromid, which according to the investigations of Leva, instituted by me, behaves otherwise than sodium chlorid in the organism of the nephritic. Further, eggs and egg foods should receive only salt-poor preparation and salt-poor additions. By applying the above named principles we succeed for the most part even with the stricter cures in arriving at a satisfactory transformation; for in unsalted kinds of cheese, fruits, berries, salads, tubers, legums, etc., as well as in the various farinaceous and saccharine foods, we possess a salt-poor material which enables us, together with the foods already mentioned, to satisfy to a greater or less extent the most varied tastes.

It is self-evident that of mineral waters only such can be drunk as are poor in sodium chlorid and for carrying out the stricter cures it has proved of value to have the food salted, not in the kitchen, but by patients themselves at the table, making use of the amount allowed as weighed out day by day by the druggist. In this manner the quantity permitted will be utilized not only economically, but also suitably distributed for the gustatory requirements of the patients. It does not indeed always happen in the rigorous cures that the patients are made content with a low ration of salt. In such cases strict periods must be alternated with those of moderate rigor; and through a particularly fertile application of substitutive seasoning articles, we must seek to render the patient's diet endurable.

For stimulation of the chlorin excretion, which may be combined under suitable conditions with the chlorin-poor diet, there

is to be recommended before all, the employment of theobromin preparations (diuretin, theotin, euphyllin, etc.) which according to the investigations of O. Loewi act by enegndering an active hyperemia in the kidneys. Digitalis, in small doses affects along with the heart component, the renal component as well, and likewise causes hyperemia; and already for a long period to complete the polychloruria I have maintained a certain preference for the combination of digitalis and theobromin preparations, to which to this day I remain true.

It is without question that a deliberately planned application of a systematic dechlorination furnishes us a great service in the treatment of numerous cases of renal dropsy. There are, however, situations in which the method fails despite the correctness of the indications. This is to be observed at times in especially severe, far advanced cases. Many times the method is effective even in these cases after prolonged application, or perhaps only after a portion of the effusion has been removed by puncture alone or combined with drainage. Regard should also be had to the fact that dropsies may also arise through a primary nephrogenic retention of water; so that at times, to a dropsy due to primary chlorin retention, there is added a water retention due directly to renal insufficiency. I have never denied such a possibility; but must hold fast to the view that for the most part an insufficiency for chlorin excretion precedes the insufficiency for water excretion. There thereby results the possibility of situations in which a reduction of fluids in association with reduced outgo of chlorin may be indicated. In those cases, however, in which symptoms of acute and chronic uremia coexist, I would not care to generally advise a restriction of the outgo of fluids. However, to discuss this question here would take us too far. In any case, studies of sodium chlorid metabolism have borne valuable fruit in practical therapeutics, especially of the nephrites, which activate the wish that also relations of other consequence to metabolism shall be investigated more accurately than hitherto; for possibly in other fields of mineral metabolism a deepening of our acquisitions and a broadening of our abilities may be supplied.

--*The Post Graduate.*

## Extracts from Home and Foreign Journals.

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### SURGICAL

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#### TREATMENT OF MALIGNANT GROWTHS WITH EXTRACTS DERIVED FROM THE TUMOR ITSELF.

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At the last meeting of the German Surgical Congress Dr. Stammler (*Münch. med. Wochenschr.*, No. 15, 1913) presented a patient twenty-five years old, in whom recurrent uterine cancer with metastases had completely subsided under treatment with an extract obtained from her tumor. This was prepared from a metastatic gland, the material representing a sterile watery extract to which some toluyl was added. This preparation had been used in several other cases and found to exert a distinct influence upon the growth. One case of omental cancer had been greatly improved. Although too much significance should not be attributed to these observations, Stammler thinks that in all cases in which it is possible to obtain sterile tumor material for injection it is an advantageous addition to other methods.—*International Journal of Surgery*.

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#### THE SURGICAL TREATMENT OF VESICAL PAPILLOMA AND CARCINOMA.

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Watson (*Urologic and Cutaneous Review*, February, 1913), summarizes an admirable study of this subject as follows:

In cases of benign papilloma the method of treatment that would appear to be that of choice in the first instance is destruction of the tumor by the application of the high-frequency current or Oudin.

This treatment should be abandoned as soon as it becomes evident that a recurrent tumor is of malignant nature, and either transperitoneal partial resection of the bladder or total cystectomy



(the latter in the small class of patients described as being appropriate for it) substituted for it.

Of these last two methods, the former will be the more generally valuable owing to the fact that it can be applied to a much larger class of patients than the latter, but in that small class to whom the total extirpation of the bladder can be properly applied, and if that operation is done after the plan suggested by the writer, it is his belief that it will prove a better protection against recurrence than the partial operation, and that its operative and later mortality will be so reduced as to bring it within the sphere of proper and applicable operations and make it reasonably safe.

The operation of suprapubic excision may still be found to be superior with regard to preventing recurrence of benign tumors to the method of treatment by the high-frequency current, and this can only be determined by what is shown with regard to the permanency of the results attained by the latter method after the lapse of some years. The ordinary suprapubic method should be abandoned in cases of vesical carcinoma for the reason that it is evidently much inferior with regard to recurrence to the transperitoneal method of partial resection and probably will be shown to be not less dangerous.—*The Therapeutic Gazette*.

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## MEDICAL

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### IPECACUANHA IN TYPHOID FEVER.

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W. L. Frazier claims that he has found ipecacuanha very efficacious in aborting typhoid fever. His treatment (*Med. Record*) consists in giving 15 minims (1 c.c.) tincture of opium and half an hour later 30 grains (2.0 gm.) of powdered ipecacuanha in salol-coated capsules. The patient must then lie on his right side for two hours, in order that the capsules may pass out of the stomach as quickly as possible. By this means the drug does

not come in contact with the stomach wall, and vomiting is avoided. On the three following days the capsules are given in the same manner, the dose being reduced by 5 grains each day. On the fourth, fifth and sixth day the dose is 10 grains daily. The fecal discharge should be carefully examined to see whether or not any of the capsules pass undissolved.—*Critic and Guide*.

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#### TABLETS OF EMETINE IN THE TREATMENT OF AMEBIC DYSENTERY.

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It may be remembered that in 1858, Surgeon E. S. Docker, A. M.S., then stationed in Mauritius, first advocated the use of large doses of ipecacuanha in dysentery, and succeeded in reducing the dysenteric death-rate in the island from 10 to 18 per cent to 2 per cent. The more recent investigations of Major Leonard Rogers are fresh in every one's mind, and have demonstrated that the salts of emetine are specific in amebic forms of dysentery, and that, moreover, they can be given with safety without inducing the serious nausea and vomiting characteristic of ipecacuanha. In one case, an amount of emetine corresponding in four weeks to 1000 grains of ipecacuanha was well borne.

That ipecacuanha should have been so suddenly and so dramatically rehabilitated is one of the surprises of science when we recall that not very many years ago its use on active service was seriously banned by a committee of experts sitting in London. The investigations of Vedder, an American officer stationed in the Philippines, formed a fresh starting-point. Vedder found that fluid extract of ipecacuanha inhibited the growth of dysenteric amebæ *in vitro*—later furnishing the observations that broth-cultures of dysenteric amebæ were destroyed by emetine. Upon these facts Rogers seized, with keen perception of the practical clinical application of the discovery. "I therefore," he says, "tested the effects of the solutions of emetine on *A. Histolytica* in dysenteric stools." All the force of Roger's investigations lies

in these last three words. He found, in point of fact, that amebæ in dysenteric stools were killed by a dilution of 1 in 10,000 of emetine hydrochloride, and rendered inactive even by so high a dilution as 1 in 100,000. Microscopic examination of the dysenteric ulcers of an advanced case which ended fatally failed to reveal a single living ameba, after a dosage of  $3\frac{1}{2}$  grains in  $2\frac{1}{2}$  days.

The keratin-coated product of emetine constitutes yet another advance, and has been introduced in order to enable the hydrochloride to be given orally. The keratin coating facilitates the contents of the product reaching the pathogenic areas of the bowel, unimpaired in activity and without interfering with gastric processes. Tablet emetine hydrochloride, gr.  $\frac{1}{2}$ , keratin-coated, is especially suitable for routine treatment in dispensary and out-patient work, since it enables the patient to take the remedy himself.—*The Therapeutic Gazette*.

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#### THE RATIONALE OF THE USE OF ADRENALIN IN THE TREATMENT OF ASTHMA.

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McCord in the *Medical Record* for March 8, 1913, writes on this topic. In the abstracts made by McCord no attempt is made to cover the entire literature, but rather to cite the experimental basis for adrenalin treatment and attempt to correlate clinical results, explained at present by means of far-fetched theories. That adrenalin has found so scant favor at the hands of the general practitioner may be ascribed to the fear of evil secondary effects. Braun warns against the subcutaneous injection of adrenalin, but wide-spread and extensive clinical experience not only does not bear this out, but indicates that such a fear is groundless. Kirchheim injected daily 12 c.c. of the market solution for many weeks into patients with severe infectious diseases. No secondary effects of evil nature were to be noticed. At the time of injection certain unpleasant results have been pointed out as oc-



curring transiently. Severe palpitation of the heart may occur, which leads to a very pronounced, but not accelerated, pulse. A peculiar restlessness may set in which may create the patient's alarm, and at times the face may rapidly become very pale, but all of these pass rapidly away, and at the same time the respiration becomes easier and softer and the rattling and wheezing sounds cease.

From the results indicated above growing out of the use of adrenalin by both laboratory and clinical workers it seems reasonable to conclude:

1. Adrenalin extends the lumina of contracted bronchioles.
2. This dilatation of the bronchioles is probably the basis for the beneficial action of adrenalin in the treatment of asthma.
3. The dilatation follows subcutaneous, intravenous, and endobronchial administration.
4. The action is transient but very effective in relieving the acute attack. The subcutaneous administration apparently is the most transient.
5. The administration is simple and no injurious results follow as a secondary sequence.—*The Therapeutic Gazette*.

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#### SALVARSAN IN PERNICIOUS ANEMIA.

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Byrom Bramwell reports the results in eleven cases of undoubted pernicious anemia, and in one doubtful case treated by salvarsan; of the eleven undoubted cases, four have been apparently completely cured—whether in these cases a relapse will occur or not the author is unable to say; in two cases there was very striking improvement; in one case there was very considerable improvement, but ultimately a relapse and death; in one case there was slight improvement and death from bronchopneumonia while under treatment; in two cases there was no improvement; and in one case slight improvement, the patient being still under treatment. The author has had nearly forty years' experience

with the ordinary arsenical plan of treatment of pernicious anemia, and he believes that the salvarsan treatment is superior to the ordinary arsenical treatment. Further experience is, however, required before one can say whether the beneficial effects, which it undoubtedly produces in many cases, will be lasting or merely temporarily. In giving salvarsan he has always given it intramuscularly, the dose used being 0.3 gram, which is half the dose usually employed in syphilis.—*Medical Record*.

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#### PITUITARY EXTRACT IN THE TREATMENT OF HEMOPTYSIS.

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M. E. Rist reported at the Societe Medicale des Hopitaux that he had obtained excellent results in the treatment of hemoptysis by means of the intravenous injection of pituitary extract. One-half cubic centimeter of the extract, representing one decigram of the fresh substance, is the dose injected by the author into a vein at the bend of the elbow. The hemostatic action is generally immediate. A single injection suffices to arrest a profuse and rebellious pulmonary hemorrhage. No other remedy has an effect as rapid and as lasting.—*Le Bulletin Medical*.

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#### A NOTE ON THE TREATMENT OF COUGH IN ADVANCED PULMONARY TUBERCULOSIS.

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As the cough in pulmonary tuberculosis is often a very distressing symptom, especially during the night hours, any remedy that will give relief to the sufferer is of value.

An intelligent patient of mine, who was suffering with advanced pulmonary tuberculosis, first called my attention to the fact that when he took acetylsalicylic acid (aspirin) in the evening, his cough was much relieved and as a result he passed a more comfortable night.

I made use of this observation in several other cases of advanced pulmonary tuberculosis, asking the patients to let me know if they received any benefit from the treatment and in every case reports were favorable.

I now frequently advise patients with advanced pulmonary tuberculosis to take acetysalicylic acid 5 or 10 grains about 8 p.m. when they are troubled with an excessive cough at night. The smaller dose is often sufficient to control the cough and is not so liable to cause a night sweat as is the larger dose.

I do not recall ever having seen this fact mentioned in the current medical literature and I am unable to find any mention of it in the books on the subject which I have consulted. I would suggest that this remedy be given a trial before resorting to the use of opium or its derivatives, in cases in which local treatment of the nose, pharynx, larynx or postural treatment of the patient is not successful.—*The Journal of the Am. Med. Asso.*

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#### LETHAL DOSE OF BICHLORIDE.

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The *Therapeutic Gazette* points out that almost always when a physician is called to testify in a court of law in a case of poisoning he is asked by one of the attorneys, or by the judge, "What is the lethal or fatal dose of the poison under consideration?" and not infrequently the legal mind finds it difficult to understand why the physician can not name a definite or fixed amount of a well-known toxic agent.

There are, of course, many reasons for this aside from the difference in susceptibility of the individual. Much depends upon the rapidity with which the absorption of the drug has taken place, and this in turn depends upon the activity of the circulation, the competency of the stomach to perform its functions, and whether the poison is diluted by considerable quantities of food and drink. For this reason all those who are acquainted with toxicological literature know that the lethal dose of death-deal-



ing drugs must vary in each individual case, in some instances an amount scarcely larger than that sometimes employed for medicinal purposes acting as a poison, and in other instances very large doses being taken without the production of very dangerous symptoms.

An illustration of this is afforded by a report made to the *British Medical Journal* of January -8, 1913, by Fuller, who records the case of a man 85 years of age, who swallowed by mistake  $8\frac{3}{4}$  grains of bichloride of mercury. The patient at once recognized his error and drank a tumblerful of barley water. Seen by his physician half an hour later he was given white of egg, and when he retched he brought up blue-stained mucus from the indigo in the bichloride tablet. The stomach tube was then passed and the stomach washed out with large quantities of albumen-water and milk and water. There was an urgent desire for the bowels to move, but very little more than mucus was passed. The patient became extremely collapsed, was cold and pallid, and the pulse was almost imperceptible. Strychnine was given hypodermically and milk and brandy by the mouth. The next morning he was somewhat better, but was still in a very critical condition, and for several days the bowels continued to be very irritable, but his general condition improved. We are told that after a slow convalescence he quite recovered from the effects of the poison. Fuller points out that while other cases have been recorded in which recovery has followed an even larger dose, nevertheless an instance is reported in the *British Medical Journal* for 1905, Volume I, in which a dose of  $2\frac{1}{2}$  grains was swallowed and death ensued in three weeks from the diarrhea which was induced. The fact that recovery took place in a man of 85 years is also of interest.—*The Medical Brief*.

## OBSTETRICAL

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### A NEW OPERATION FOR TEMPORARILY STERILIZING WOMEN.

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Dr. Blumberg (*Berlin klin. Wochensch.*, No. 16, 1913), has evolved a new operative method which is intended to produce sterility in women with the possibility of later restoring their reproductive function. It consists in enclosing the ovaries in small pockets of peritoneum, thus preventing the ovum from gaining access to the tubes. This is done by folding back the broad ligament like a cloak over the posterior surface of the uterus and closely suturing the free margins of the ligament to the uterus at this point, leaving the tube in the free peritoneal cavity. The suture is continued through the mesosalpinx to the lateral borders of the uterus. The same procedure is carried out on the other side. If at a subsequent period it is desirable to restore the patient's fertility, all that is required is to loosen the suture. As a prerequisite for operation it is necessary that the broad ligament should be freely movable, and it is important that the stitches should be extremely closely applied. To obtain as close adhesions as possible tincture of iodine is carefully applied to the line of sutures. Blumberg has operated by this method in six cases with good results.—*International Journal of Surgery*.

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### BREAST FEEDING.

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Dr. H. D. Cran states that the serious accidents so commonly attributed to overfeeding by the breast are very exceptional. If the child has taken a little too much milk there is a simple regurgitation, which occurs at that moment after the meal when the stomach contracts and expels the air swallowed with the milk. The stomach of the baby is not a rigid receptacle; its musculature is extensible and its glandular mechanism is quite able to chimify large quantity of the mother's milk. This does not mean

that the weighing machine is never of any use in the control of feeding by the breast. But when a young mother is healthy and has a regular secretion of good milk, and when her baby is likewise normal and drinks well, it is quite useless to weigh the infant frequently. In these circumstances it is sufficient to weigh the child once or twice a week. On the other hand, the methodical use of the weighing machine is indicated as soon as a child on the breast ceases to increase in weight. This will usually show that the secretion of milk is diminishing. The milk of the mother must be administered as an ailment and not measured as a medicine.—*Medical Record*.

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#### PITUITRIN FOR UTERINE INERTIA.

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Wilette (*Bulletin de la Societe d'Obstetrique et de Gynecologie de Paris*, February, 1913), reports two cases in which weak and insufficient uterine contractions were so stimulated after an injection of pituitrin that they became regular and strong after 20 minutes. Accouchement was accomplished in two hours in the one instance and in three hours in the other, without any untoward accident, either during labor, during the delivery, or during the subsequent child-bed period. Without wishing to deduce conclusions from so limited an experience, he nevertheless deems it worth while to report these observations as a contribution to the study of a procedure still novel.—*The Therapeutic Gazette*.

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#### PERNICIOUS VOMITING OF PREGNANCY.

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Williams, in the *Glasgow Medical Journal*, presents the following conclusions:

1. The underlying factor in all cases of vomiting of pregnancy is probably an imperfect reaction on the part of the mother to the growing ovum.



2. In most cases this is only a predisposing cause, while a reflex or neurotic influence is the exciting factor, and cure usually follows its removal.

3. Williams still holds to the classification of reflex, neurotic and toxemic vomiting. Of these the neurotic is the most and the reflex the least frequent type, while the toxemic is the most serious.

4. Pronounced toxemic vomiting is accompanied by characteristic lesions and profound changes in metabolism.

5. The significance of a high ammonia coefficient is not specific. It may be a manifestation of toxemic vomiting, of starvation following neurotic vomiting, or of an acidosis due to various causes.

6. It should be regarded merely as a danger signal, while the differentiation between the various types is possible only after careful clinical observation. If improvement does not promptly follow appropriate treatment, the existence of toxemic vomiting should be assumed and abortion promptly induced.—*The Medical Brief*.

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#### TARDY HEMORRHAGE AFTER CHILDBIRTH.

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In Loof's three cases the hemorrhage came on the third week or month after an apparently normal childbirth and the women succumbed. After the first profuse hemorrhage, there was a period of a few days or weeks entirely free from bleeding before another gush of blood. One patient had six of these hemorrhages (dying the third month; a false aneurysm was found in the cervical branch of the uterine artery, probably injured during profuse hemorrhage delivery. Veit has reported a similar case of intermittent bleeding, the uterus having been torn during delivery. This was also the case in the third patient whose history is related, a small rupture being found after death. These patients might all have been saved if the cause for the hemorrhage had been discovered in time. Something of the kind should be suspected

when a tardy profuse hemorrhage is followed by a period without any bleeding, during which the patient recuperates and feels quite well; then suddenly comes another profuse hemorrhage—a sign of aneurysm bleeding, and hence a signal for prompt operative measures. Conservative treatment has absolutely no chance for success and exposes to serious danger. Even suturing the rupture is not enough. The uterus should be removed without delay as soon as the bleeding returns and warns of the true nature of the hemorrhage. The intermission is only a treacherous truce.—*The Journal of the American Medical Association.*

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#### ARNOUS' SIGN IN TWIN PREGNANCY.

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Lorier says that in the diagnosis of twin pregnancy the stethoscopic signs are the most important. The hearing of two non-synchronous hearts with beats of different rate is a certain sign, but this needs a second observer. The author mentions a new sign of value, consisting in the perception by the same observer at the same point of two hearts, not always synchronous, so that the sound is at intervals like that of two horses trotting together, the feet being alternately synchronous and nonsynchronous, giving gallop rhythm. Production of this sign requires proximity of the two hearts, or the overlapping of their zones of propagation. It is necessary to explore systematically with a stethoscope all the accessible surface of the uterus, especially the zone between the two points of heart sounds. The author states this sign is found in one out of every three cases of twin pregnancy.—*Australian Medical Gazette.*

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#### TREATMENT OF HABITUAL VOMITING OF NURSINGS.

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Superlactation is usually assigned as the cause of habitual vomiting in nurslings. Digestive disturbances due to this cause are extremely frequent. An insufficient amount, however, will also

produce habitual vomiting, and this is a cause which is too often altogether overlooked in such cases, says Cheinisse (*Semaine Med.*). Then, again, it may be the result of hypertrophic stenosis of the pylorus. Finally, it may occur in infants who are the subjects of gastric hyperesthesia. Treatment consists in regulating the feeding to the needs of the infant. Where there is hypersensibility present a mixture of sodium bicarbonate and potassium bromide often yields excellent results, while in cases presenting pyloric stenosis small feeds at frequent intervals should be tried, together with warm applications over the epigastrium. Antispasmodics, such as belladonna, have also been recommended in these cases.—*Critic and Guide.*

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#### HEART DISEASE AND PREGNANCY.

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Fellner concludes on the basis of about 250 cases that heart disease is not an extremely dangerous complication of pregnancy. Its danger depends more on the condition of the heart muscle than on that of the valves. It is the birth that is to be feared, not the pregnancy itself, and abortion should be performed in cases where the mother has shown dangerous heart symptoms in previous labors. Also in heart disease complicated by tuberculosis, goiter or nephritis. Mitral stenosis demands active intervention also. The patient's circumstances should be taken into account in considering sterilization; working women can not spare their hearts during pregnancy and should therefore be sterilized more readily than the well-to-do. Vaginal cesarean section was found a satisfactory procedure in a number of cases. Heart disease seems to be a frequent cause of menorrhagia.—*The Journal of the American Medical Association.*



SUDDEN DEATH IN LABOR FROM ACUTE PANCREATIC  
NECROSIS.

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Saenger writes at length on this subject. Many cases of sudden death during or just after labor are upon record; and when the subject of pregnancy toxemia was first discussed, it was surmised that some at least of those cases would be found due to this cause. Still later the use of drugs to produce the half sleep so-called—scopolamin and other narcotics as well as hypophysis substance as an oxytoeri were likewise held in suspicion. Mere coincidence seems responsible for what is known as false eclampsia, in which meningitis, pneumonia, etc., cause death as or soon after labor. A few cases are known to have been due to air embolism. The author now describes a case due to acute necrosis of the pancreas. We know little about the nature of this affection. The patient was corpulent and somewhat of an alcoholic. She ate very heartily just before labor began and the latter lasted but two and one-half hours. The introabdominal pressure must have been very high so that the pancreas was compressed. Soon after expulsion of the placenta she collapsed and vomited, death occurring so soon after that air embolus was suspected. Autopsy showed that the pancreas was the seat of an acute necrosia. There were fresh, toxic lesions in the liver, due apparently to the escaped pancreatic ferments; but there had been no pancreatic hemorrhage. The author finally asks whether this pancreatitis could have been due directly to the toxemia of pregnancy and is obliged to confess his inability to throw light on the subject.—*Medical Record*.

## Editorial

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All bills for advertisements to be paid quarterly, after the first insertion of the quarter.

Business communications, remittances by mail, either by money order, draft, or registered letter, should be addressed to the Business manager, C. S. Briggs, M. D. corner Summer and Union Streets, Nashville, Tenn.

All communications for the Journal, books for review, exchanges, etc., should be addressed to the Editor.

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### AN UNFAIR CRITICISM.

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In the June issue of the *Pacific Medical Journal*, over the initials E. H. S., we read an editorial bearing the title "Is Murphy Any Worse this Year than He Has Been for Years?"

The sum and substance of this editorial is not only an attack on Drs. John B. Murphy and Martin, but also a criticism of the proposed American College of Surgeons. We do not know E. H. S. (Ethan H. Smith) nor do we remember having learned a great deal from any writings or work of his, but through his writing and work we do know Dr. John B. Murphy and the more we read his books, articles and clinics the more our admiration increases. Dr. Murphy's writings and clinics are based on the firm foundation of a thorough knowledge of physiology, embryology, anatomy, pathology, good common sense and last but not least, a vast experience. Not only is Dr. Murphy a skillful surgeon, but he is also a wonderful teacher and our own opinion is that the profession as a whole should consider "Murphy's Clinics," regardless of who originated them, the Saunders Publishing Company, or Dr. Murphy himself, a great boon to the profession. Until E. H. S. does or writes something to make us favorably familiar with him we can not help but feel that he had better keep quiet, because in considering the source of such attacks our good opinion of the writer naturally decreases while the reputation of the truly great man suffers not one whit. As for the at-

tack in the same editorial on the proposed American College of Surgeons, we can only say that it is as unjust as that on Dr. Murphy. Everybody with any common sense knows that the profession and the public needs the protection of some such organization, not only for surgeons, but for all the specialties. The public is preyed on by pseudo-specialists and really we can not say but what E. H. S. may be one of them. We do know, however, that Drs. Murphy and Martin are not in the pseudo class.

Some pseudos might slip into the proposed college, but as a whole it would represent the best surgeons in the country, and we certainly hope America, like England, will soon have such an organization.

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STATEMENT OF THE OWNERSHIP, MANAGEMENT,  
CIRCULATION, ETC.,

of the *Nashville Journal of Medicine and Surgery*, published monthly, at Nashville, Tenn., required by the Act of Aug. 24, 1912.

Note.—This statement is to be made in duplicate, both copies to be delivered by the publisher to the postmaster, who will send one copy to the Third Assistant Postmaster General (Division of Classification), Washington, D. C., and retain the other in the files of the postoffice.

Editor, Charles S. Briggs, M.D., Nashville, Tenn.

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CHARLES S. BRIGGS, M.D.

Sworn to and subscribed before me this 18th day of July, 1913.

(Seal.)

J. M. WINSTEAD, N. P.

My commission expires Oct. 8, 1916.



AMERICAN MEDICAL ASSOCIATION.

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At the June meeting of the A. M. A. at Minneapolis, Dr. Victor C. Vaughan, of Ann Arbor, Mich., was elected President to succeed Dr. John A. Witherspoon, of Nashville. The Vice-Presidents elected were Drs. W. P. Conoway, Atlantic City; Frank C. Todd, Minneapolis; Lillian H. Smith, Bowling Green, Ky., and Sol G. Kahn, Salt Lake City. Dr. Alex A. Craig and Wm. A. Pusey, both of Chicago, were selected secretary and treasurer, respectively. Atlantic City was chosen for the 1914 meeting of the association.

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DR. W. T. BRIGGS.

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Dr. W. T. Briggs has accepted a three months service in St. Johns Hospital in Brooklyn, N. Y., where he will be located until October, when he will return to this city to take up his work in the anatomical department of Vanderbilt Medical College.

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## DENTIST (MALE).

Indian Service.—June 4, 1913.

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The United States Civil Service Commission announces an open competitive examination for dentist, for men only, on June 4, 1913, at the places mentioned in the list printed hereon. From register of eligibles resulting from this examination certification will be made to fill a vacancy in this position at \$1,500 per annum, in the Indian Service at Large, and vacancies as they may occur in positions requiring similar qualifications, unless it is found to be in the interest of the service to fill any vacancy by reinstatement, transfer, or promotion.

The Office of Indian affairs states that in addition to the salary mentioned the incumbents in these positions will be allowed actual and necessary traveling expenses, including sleeping-car fare, incidentals, and subsistence when actually employed on duty in

the field away from headquarters. All dental supplies and instruments are furnished by the Government.

These employes will have no fixed place of abode, but will be required to travel from school to school as the needs of the service require.

Competitors will be examined in the following subjects, which will have the relative weights indicated :

<i>Subjects.</i>	<i>Weights.</i>
1. Letter writing (the subject matter on a topic relative to the practice of dentistry)-----	5
2. Anatomy and physiology (general questions on these branches, also with special reference to the teeth, mouth, and head) -----	10
3. Chemistry, materia medica, and therapeutics (the preparations, properties, and reactions of chemicals, crude drugs and their preparations, their action and application, with those of other therapeutic agencies)--	15
4. Dental pathology and oral surgery, (the morbid processes incident to diseases and injuries of the teeth, mouth, and contingent structures, and their surgical treatment) -----	20
5. Operative and prosthetic dentistry (the detailed technics and special operative and laboratory work)-----	25
6. Bacteriology, histology, and hygiene (the cultivation, isolation, demonstration of bacteria, the principles of sterilization, mounting specimens, use of microscope, the principles of general and oral hygiene, etc.)-----	10
7. Orthodontia (local and constitutional irregularities in growth and development of the teeth, and their correction) -----	15
Total-----	100

Graduation from a regularly incorporated dental college and at least two years' experience in the practice of dentistry subsequent to graduation from such college is a prerequisite for consideration for this position.

Statements as to training, experience, and fitness are accepted subject to verification.

Applicants for the Indian Service must be in good health.

Applicants must have reached their twenty-fifth but not their fortieth birthday on the date of the examination.

This examination is open to all men who are citizens of or owe allegiance to the United States and who meet the requirements.

Persons who meet the requirements and desire this examination should at once apply either to the United States Civil Service Commission, Washington, D. C., or to the secretary of the board of examiners at any place mentioned in the list printed hereon, for application and examination Form 1312. No application will be accepted unless properly executed, including the medical certificate, and filed with the Commission at Washington in time to arrange for the examination at the place selected by the applicant. In applying for this examination the exact title as given at the head of this announcement should be used.

Issued May 2, 1913.



## Publisher's Department

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### A PURGATIVE FOR MUCOUS MEMBRANES.

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Glyco-thymoline is one of the most valuable adjuncts in the treatment of, and aid in, the prevention of disease, in that by its peculiar properties it tends always to aid nature in her efforts to restore to normal conditions.

It is unique in being the one antiseptic solution based on the alkalinity and saline strength of normal blood. Its action is exosmotic, antiseptic and to a degree anæsthetic.

It insures asepsis without irritation, prevents infection and rapidly establishes normality. It is cleansing, soothing and healing, in that it stimulates cell life. By its power of promoting exosmosis it purges the mucous membrane as soon as it is brought into contact with it. By its anæsthetic property it soothes the pain, and by its power of stimulating the circulation it relieves the capillaries of their local congestion and restores the normal circulation.

The immediate cause of a catarrhal discharge is an engorged mucous membrane. Empty by exosmosis and you relieve instantly.

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"Robinson's Lime Juice and Pepsin" is an excellent remedy in the gastric derangements particularly prevalent at this season. It is superior as a digestive agent to many other similar goods. (See page 9, this issue.)

## Reviews and Book Notices

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The Surgical Clinics of John B. Murphy, M.D., at Mercy Hospital, Chicago, Volume II, Number 3 (June, 1913). Octavo of 185 pages, 62 Illustrations; Philadelphia and London; W. B. Saunders Co., 1913. Published Bi-monthly. Price per year, paper, \$8; cloth, \$12. W. B. Saunders Co., Philadelphia and London.

We acknowledge with thanks to the publishers the receipt of Vol. II, No. 3 (June, 1913), of Surgical Clinics of John B. Murphy, M.D.. This, as we have said of all the preceding numbers of this excellent publication, is full of good things and will furnish practical instruction for the reader. These clinics represent surgery in its most progressive form. Among the most interesting subjects treated may be mentioned, "Obturator Ileus," "Paratracheal Tumor," "Ankylosis of the Jaw," "Potts' Disease," "Procidentia Uteri," "Acute Suppurative Prostatitis," and other subjects of equal interest. It will be noted that the diseases treated of represent every branch of surgery and gynecology. Every practitioner should subscribe to this work.

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Progressive Medicine, a Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences; Edited by Hobart Amory Hare, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College, Philadelphia; assisted by Leighton F. Alpelman, M.D., Instructor in Therapeutics, Jefferson Medical College, Philadelphia; June 1, 1913; Lea & Febiger, Philadelphia and New York.

This quarterly publication of advances, improvements and discoveries in the medical and surgical sciences is always welcome. This number of the quarterly contains the following: Hernia, by William B. Coley; Surgery of the Abdomen, Exclusive of Hernia, by John C. A. Gerster, M.D.; Gynecology, by John G. Clark, M.D.; Diseases of the Blood, Diathetic and Metabolic Diseases of the Thyroid Gland, Nutrition and the Lymphatic System, by Alfred Stengel, M.D.; Ophthalmology, by Edward

Jackson, M.D.; Index. This publication occupies a place to itself, and as its editors intend, represent the most advanced thought and foremost progress in every branch of medicine so that its readers in it possess a compact summary of all that is new and of value along the line of discoveries and advances. Every physician who wishes to be in the van of medical and surgical advances should subscribe to this quarterly.

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**Sex, Its Origin and Determination.**—A Study of the Metabolic Cycle and Its Influence in the Origin and Determination of Sex; the Cause of Acute Disease, Parturition, etc. By Thomas E. Reed, M.D., Middletown, Ohio, U. S. A.; New York; Rebman Co., Herald Square Building, 141-145 West 36th St.

This book, treating of the origin and determination of sex, should prove an interesting study for the physician. It is based upon a series of papers entitled, "The Sex Cycle of the Germ Plasm," published by the author in 1907 in the New York Medical Times in which he discussed the subjects along the same lines as presented in this book. The various hypotheses regarding sex determination and the prenatal recognition of sex are thoroughly ventilated and discussed. His own theories are based upon a large experience and a careful observation. The work is well arranged and clearly written and should prove of interest in the way of a curious disquisition upon a subject about which little is known at the present day.

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**Text-book of Diseases of the Nose, Throat and Ear.**—For the Use of Student and General Practitioners. By Francis R. Packard, M.D., Professor of Diseases of the Nose and Throat in the Philadelphia Polyclinic Hospital and College for Graduates in Medicine; Aurist to the Out-patient Department of the Pennsylvania Hospital. Second Edition, with 145 Illustrations. Philadelphia and London; J. P. Lippincott Co.; Price \$3.50.

The second edition of this most excellent text-book makes its appearance very shortly after its first edition, a fact made necessary by the rapid strides made in the progress of laryngology



and rhinology. As a consequence, in this edition a thorough revision of the greater part of the work has been made, and in many sections subjects treated of have been entirely rewritten so as to incorporate all recent advances made in this important branch of medicine. The author has endeavored to make the work eminently practical so that students may have a reliable guide to follow, and as a means of rendering the text clearer, has furnished copious illustrations throughout. The needs of the student have been fully realized, the author's many years experience in post-graduate teaching enabling him to grasp the requirements of such a handbook in the fullest manner. The work deserves in every way the most complete patronage of the medical public.

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**Sterility in the Male and Female and Its Treatment.**—By Max Huhner, M.D., New York, Chief Genito-Urinary Department Harlem Hospital Dispensary, New York City; Formerly Attending Genito-Urinary Surgeon Bellevue Hospital; Out-patient Department and Assistant Gynecologist Mt. Sinai Hospital Dispensary, New York City; Member American Urological Association, American Medical Association, Fellow of the New York Academy of Medicine. New York. Rebman Co., Herald Square Building, 141-145 West 36th St.

We have read this book with a great deal of interest, as it deals with a subject as yet but little understood by the profession. We quote from the author's preface: "The object of this book is two fold. In the first place, it will present the results of original work and study on the subject of Sterility, pointing out at the same time certain errors which have been copied from one text-book into another without investigation or challenge; and in the second place, it will present a practical method of the treatment of Sterility in the male and female based upon scientific investigation and preoperative diagnosis."

An unique procedure original with the author is aspiration of the testicle in order to ascertain the condition of spermatozoa as bearing upon the sterility of the male. The work represents the most careful research and painstaking labor of the author in the preparation of a book that will prove of immense value in the study and management of sterility.

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# NASHVILLE JOURNAL — OF — MEDICINE AND SURGERY

CHARLES S. BRIGGS, A. M., M. D., Editor

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VOL. CVII.

AUGUST, 1913.

No. 8

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## Original Communications

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### THE OPEN TREATMENT OF FRACTURES—A FEW REMARKS.\*

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By PAUL DEWITT, M.D., Nashville, Tenn.

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The object of this paper is not to go into an exhaustive discussion of the treatment of fractures, but to pass a few remarks upon some practical points. During the Clinical Congress of Surgeons in New York last fall I enjoyed the rare privilege of seeing Mr. Lane plate three fractures. The things which especially impressed me about Mr. Lane were his personal unassuming simplicity, his gentleness of manipulation, and the perfectness of his aseptic technique.

After having seen a good deal of the operative treatment of fractures and having done a certain amount myself, I am more and more impressed with its possibilities. While I do not believe all fractures should be operated upon, I am convinced not enough are so treated. Many deformities, shortenings, etc., could and should be prevented.

The report of the committee on fractures of the British Medical Association shows that, in children, the non-operative and the operative treatment give about the same percentage of functional results, and that as age advances, the results are progressively in favor of operation. Old people, however, stand even

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\*Read before the Middle Tennessee Medical Society at Dickson, Tenn. Tenn., May, 1913.



simple fractures badly, and caution should be exercised in advising any procedure that may add serious shock. Apply the method to the case and not the case to the method.

As to the time for operating: Mr. Lane operates immediately, thus relieving swelling and taking advantage of all possible time for union. Operate any time after shock is relieved, preferably within five days.

Ligamentous-union and ununited fracture have heretofore been our chief indications for open interference, but, while necessary in these cases, the best results are obtained in cases operated upon immediately after fracture, before callus has been thrown out and the bone has expended its energy in an attempt at union.

Comminuted fractures especially demand open treatment, because of the difficulty of aligning and maintaining the fragments, and the probability of the interposition of muscle and small pieces of bone.

In fracture of the femur, it is estimated that twenty-five per cent require operation. I believe the percentage should be higher. The shaft of no other bone gives as bad non-operative results as does the femur. This bone is so deeply imbedded in muscle that it is usually impossible to tell, without the X-ray, whether or not the fragments overlap or even touch. The committee of the Pennsylvania Medical Society reports that shortening of an inch is considered a good result and a half inch is the average. This deformity can be prevented absolutely by operation and the end-results will justify the risk.

The tibia also frequently requires plating, due usually to the obliquity of the fracture. In the humerus, especially the middle and lower thirds, the open treatment is desirable because of the frequent injury to the musculo-spiral nerve, which is either lacerated or pinched. By operating, the nerve can properly be taken care of and musculo-spiral paralysis or wrist-drop prevented. In the bones of the forearm, plates work admirably, giving fine rotation because of the better alignment and a really smaller callus.

It requires a general anæsthetic for the proper reduction of these fractures, and I do not believe a quick operation will add materially to shock.

Infection has been the dread, but the technique elaborated by Mr. Lane eliminates this objection. Asepsis must be absolute, even more so than in abdominal surgery where the peritoneum takes care of a certain amount of infection, while bone will not tolerate it, owing to its meager blood supply. To accomplish asepsis, instruments must not be handled by assistants even with gloved hands. All instruments, swabs, etc., are handled with forceps. The gloved hand must not touch anything which touches the wound. One knife incises the skin and another is used for the muscle. As soon as bone is reached, towels are clamped to the deep muscles covering all cut surfaces, thus preventing contact of instruments with the soft parts. Muscles are now gently separated from each fragment enough to allow the application of the bone clamp and plate. The periosteum is left intact. Reduction is effected by grasping each fragment with a lion-jawed forcep, bringing it out of the wound, approximating the ends and then straightening the limb. Bowman's clamp is now applied, which holds the fragments and also the plate while the screws are being inserted. No catgut or other suture material is put into the wound, bleeding vessels being clamped and the muscle simply allowed to fall back into place. Michell's clamps approximate the skin.

Traumatism, being one of the main factors in all wound infection, the gentlest manipulations are necessary. Just as mauling fat in an abdominal incision will cause necrosis, so here roughness will induce a breaking down of soft parts.

Plates and other mechanical supports will remain indefinitely in the tissues if placed not too near the skin and there is no infection. The main reason screws "work loose" in apparently sterile wounds is because of a low grade infection on the screw, usually put there by picking up the screw with the fingers. An absolutely sterile screw will maintain a firm hold indefinitely.

All these things go to show that a fully equipped operating room and trained assistants are necessary for the greatest meas-

ure of success, but, with these, we are able to obtain a greater percentage of better results by seeing what we are doing and using a truly mechanical support for a break.

I here present skiagrams to illustrate. This was a lad twelve years old who was struck by an auto, the lamp hitting the thigh at the seat of fracture. After two and a half weeks of the usual treatment with extension, etc., I was able to get him to the X-ray machine. Picture No. 1 shows the fragments overlapping and not even touching, yet to all appearances there was perfect apposition. On cutting down I found a strip of muscle interposed. This would have been a case of non-union, and had I operated earlier the boy would have been saved two weeks' time. I present these pictures simply as an example of what we may expect in getting better and quicker results by using the open method of treatment in certain fractures.



## Selected Articles

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### THE USE OF OPIUM IN GANGRENE.\*

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By GEORGE W. GAY, M.D.,

Senior Surgeon, the Boston City Hospital, Ex-President Massachusetts Medical Society, etc., Boston, Mass.

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The object of this paper is to call attention to the beneficial effects of opium in certain conditions and lesions of the lower extremities occasionally met with in elderly people. While serving as interne in one of our hospitals in 1865, in the days of "Swan Alley ulcers," hospital gangrene, etc., the writer was taught the value of this drug in those conditions resulting from degeneration of the blood vessels of the lower extremities due to arteriosclerosis, atheroma, thrombosis, etc. Of course the importance of these changes was not appreciated in those days, as it is at the present time. Now it is a familiar saying, even among the laity, that a person is as old as his arteries. Arteriosclerosis, "hardening of the arteries," as common parlance has it, is a very common condition and means wearing out. Many of the sudden deaths from "acute indigestion," as reported in the daily press, are due to this degenerative affection. For example, a clinical picture frequently met with in elderly people by every practitioner consists in dyspnea, short breath on running upstairs, chasing a street-car, or undergoing any unusual mental excitement. In the absence of other competent explanation of the symptoms, it indicates a degeneration of the coronary arteries, or of those in other parts of the body, that means destruction. There is no cure for this condition, although a great deal can be done to prolong life and make it well worth the living.

When vascular degeneration affects the lower extremities in the form of endarteritis, atheroma, thrombosis, etc., we have

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\*From the Medical and Surgical Reports of The Boston City Hospital Sixteenth Series, 1913.

other manifestations that may terminate disastrously. The arterial coats are thickened and in consequence lose their elasticity. The lumen of the vessels is diminished, the circulation is retarded, capillary action is impeded, stasis follows, and the tissues break down in indolent ulceration, sloughing, and gangrene. Similar conditions are not infrequently met with in diabetics, and while these patients should receive the peculiar dietetic treatment applicable to this affection, yet the method advocated in this article may well find a useful place in the management of these cases in accordance with suggestions that will appear later.

Pain in the feet, and especially in the toes, of elderly people is suspicious of more serious affection than "rheumatism." It may be the initial symptom of an indolent ulceration which may terminate in gangrene. Should the patient be a victim of arteriosclerosis, as most of them are, the dangers resulting from impaired nutrition are all the more imminent.

Upon inspection the circulation will be found sluggish, as indicated by the dark, purplish color and slow return of blood following pressure, etc. The tibial vessels will be indistinct, or not to be detected by palpation. Sensation may be altered, as well as the temperature. Under these circumstances even trivial lesions, as abrasions, blisters, black spots, etc., demand careful attention. They may mean mischief. The toilet of the nails calls for much care. Corns and bunions should not be neglected, but on the contrary should receive respectful consideration. The circulation and the nutrition of the parts are seriously impaired, and unless corrected to a certain degree, destructive processes may ensue, to the permanent harm of the patient.

Whatever may be the cause of the conditions under consideration, whether it be arteriosclerosis, atheroma, diabetes, thrombosis, embolism, etc., the indications for treatment are to stimulate the circulation and to increase the nutrition by supplying the tissues with a larger amount of pure arterial blood.

For the attainment of these objects the most efficient drug known to the writer is opium. It relieves pain and quiets restlessness. It is a tonic to the heart and blood vessels. It supports the nervous system. Used properly it produces a calm, even

sense of comfort and contentment. It stimulates the circulation and thereby increases nutrition of the extremities to a much greater extent than any other known to the writer.

For the class of cases under consideration opium is preferable to any of its derivatives, as morphine, codeine, etc. The deodorized or the simple tincture is more convenient of administration than are the solid preparations, as the dose can be more readily adapted to the varying conditions. The initial doses should be small, that the physiological and not the toxic effects of the drug may be obtained. This is an important factor in the method and merits careful attention. In ordinary cases it is well to begin with two or three drops of the tincture, deodorized or simple, night and morning. This amount may be increased by one or two drops every four to six days until some improvement is evident either in relief of the pain or the appearance of the affected parts. The moment that appears the dose is to be maintained, or perhaps lessened a little. The writer has never had occasion to exceed twenty drops in divided doses in the twenty-four hours. One of his cases has taken ten drops daily for two years or more with benefit and no harm. It seems to act as a tonic similar to strychnine, except that the improvement was much more apparent under the opiate treatment than it was under the former agent.

In many instances the drug should not be left in the control of the patient, nor need he know what he is taking. The physician or some reliable person should have charge of the medicine, "the drops," to insure the proper dose and a proper restriction of the amount taken. These precautions are essential to obviate the danger of establishing the opium habit. One of my patients in the long ago pauperized himself and some of his friends through lack of proper supervision. He took hundreds of bottles of McMunn's elixir of opium, which was at one time used extensively until supplanted by the deodorized tincture. His sloughing ulcers of the leg healed and remained well during the remainder of his life, but he got out of bounds in the use of the drug. This is the only instance the writer has seen of this sort under this mode of treatment.



The long-continued use of opium, the "long dose," as that prince of lecturers, Dr. Edward H. Clark, used to term it, calls for judgment and discretion in order to obtain the full benefit of the method. Careless, offhand prescribing has no place in the use of this powerful and seductive drug. It is better to avoid giving it on a prescription as much as possible. The physician should control not only the dosage, but also the entire quantity consumed, as a guarantee that only the desirable effects shall be obtained.

So far as the amount is concerned, the same rule should be followed here as is indicated in the opium stage in malignant and incurable diseases. Should the dose be too rapidly increased, under the latter conditions, or carried to too great an extent, the time is liable to come when the drug ceases to give relief and the patient is indeed in a pitiable state. Her sheet-anchor is gone. Her nervous system may be demoralized by the drug and the disease, and the ingenuity of the medical attendants is taxed to the utmost to give the relief so desirable in these distressing cases. Partial relief to suffering, as can usually be secured with moderate doses of the opiate, is preferable to entire relief for a time at the expense of large and increasing doses that can not be long continued. In the class of cases under consideration in this paper, large doses of opium are not a tonic and would eventually do more harm than good. The writer can not insist too strongly upon this point. It is the mild, tonic effects that are desired, and not the stronger, variable, stimulating effects, that are liable to be followed by a reaction that defeats the objects of the method. Properly managed, under the supervision of a discreet physician, the drug can be used indefinitely with benefit. The stomach and bowels are not disturbed to any extent. Vitality is maintained. The nervous system is steadied and supported, and life is better worth living not only for the patient, but for all within the sphere of his influence.

A clergyman, seventy years of age, had gangrene of all the toes of one foot, except the fifth, the result of an embolism of the femoral artery following an operation for appendicitis. He had arteriosclerosis with atheromatous arteries. The question of an

amputation was left to the decision of the writer. By reason of the degenerative condition of his blood vessels and the exhaustion of the patient, it was thought that his chances of life would be better under a conservative than under a radical mode of treatment. Furthermore, his circumstances were such that time and expense were of secondary importance. He was put upon two drops of deodorized tincture of opium night and morning. This dose was increased gradually until it had reached ten drops—*i. e.*, twenty drops in the twenty-four hours. Under this treatment the toes have dropped off, or have been snipped off if necessary, the wounds have healed, and the patient is in good condition. He spends his winters in the South, takes an interest in life, and is free from suffering. He has used the drug for three and a half years, taking ten drops daily. His family physician, Dr. H. J. Little, writes: "His recovery has been remarkable, and is a marked tribute to conservative treatment and opium."

A police captain, seventy-five years old, a victim of arteriosclerosis, was gradually disabled from pain, swelling, and redness of the feet and debility. He improved for a time under tonics and rest. Later, however, deep ulcers appeared on a toe of each foot and soon involved the other toes. One was amputated, but the wound refused to heal. The left foot became tensely swollen, painful, red, and shiny, threatening to slough. The old gentleman was prostrated by his condition, and the question of radical treatment called for a decision. He was placed upon the opium treatment, as in the previous case, and soon an improvement was in evidence. One toe dropped off, or was snipped off with scissors. The ulcerations and wounds slowly healed, and in a few months he had sound feet. He was free from pain, and has remained very comfortable now for over a year. In the words of the family physician, Dr. E. S. Boland: "In estimating the actual value of the opium, the fact that he also had rest in bed, good food, nursing, and 1-30 grain strychnine three times a day must be kept in mind, but he had all these before you gave him the opium and did not improve."

The personal element enters very largely in the management of these long and often tedious cases of senile degeneration. The

patient is on the down-hill side of life. His tissues have a lowered vitality. His recuperative powers are impaired. He does not rally from comparatively trivial disturbances, as he formerly did. One or more of his functions may be showing signs of failure. Fortunately, however, the patient does not usually realize, as does the medical attendant, that the fight is eventually to be a losing one; that a moderate degree of comfort and as great a prolongation of life as may be are all that can reasonably be expected from any sort of treatment. Patience, tact, and perseverance are indispensable to a successful management of these cases. Much, very much, can be done for the welfare of these patients aside from the use of medicine. But in the experience of the writer no drug when properly used excels the juice of the "divine poppy," opium.—*The Therapeutic Gazette*.



## Proceedings of Societies

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### AMERICAN PROCTOLOGIC SOCIETY.

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Fifteenth Annual Meeting, held at Minneapolis, Minn., June 16 and 17, 1913. The President, Dr. Louis J. Hirschman, of Detroit, Mich., in the chair. Officers elected for the ensuing year: President, Joseph M. Mathews, M.D., Louisville, Ky.; Vice-President, Jas. A. MacMillan, M.D., Detroit, Mich.; Secretary-Treasurer, Alfred J. Zobel, M.D., San Francisco, Cal. Executive Council: Louis J. Hirschman, M.D., Detroit, Mich.; J. Rawson Pennington, M.D., Chicago, Ill.; Wm. M. Beach, M.D., Pittsburg, Pa.; Alfred J. Zobel, M.D., San Francisco, Cal.

The following were elected Associate Fellows of the Society:

V. Lee Fitzgerald, 17 Batley St., Providence, R. I.; J. M. Frankenburger, Rialto Bldg., Kansas City Mo.; Wm. H. Kiger, 308 Consolidated Bank Bldg., Los Angeles, Cal.; Walter I. Le Fevre, 218 Lennox Bldg., Cleveland, Ohio.

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The following is an abstract of the principal papers read:

#### PRESIDENT'S ADDRESS.

"Proctology and Procto-Enterology"—By Louis J. Hirschman, M.D., of Detroit, Mich.

He stated that "Proctology come into its own" is in reality the study of the entire intestinal tract, its diseases and their remedies. A Proctologist becomes skilled to a high degree in the medical and surgical treatment of the diseases of the lower bowel. A medical practitioner, sufficiently skilled and competent to treat diseases affecting any portion of the intestinal tract, should be an intestinal surgeon. He must have some knowledge of modern views and discoveries bearing on the digestive tract, as they have a direct bearing on intestinal function and pathology. He should no more limit his activities to the rectum and sigmoid alone, than does the laryngologist to the larynx, or the urologist to the urethra.

An arbitrary line of division which limits a specialist's activities to the lower six or eight inches of the colon is absurd. The Proctologist has no moral right to withhold his special skill in intestinal surgery from the patient who suffers from diseases of the small intestine or upper colon. The larger problems of intestinal stasis, chronic inflammatory conditions and malignant diseases of the small and large intestines, demand the best that is in every Fellow of our organization. He should ever study and fathom out the problems of etiology, pathology and proper therapy.

The establishment of a section on Gastro-Enterology and Proctology in the American Medical Association would greatly increase the value of that organization to every one of its members who comes in contact with diseases of the alimentary tract.

It is the American Medical Association which should foster all that is new and valuable in medicine. It is the greatest medical educational institution in our country; and the Fellows of the American Proctologic Society should be the most enthusiastic supporters of such a section, if established.

"Memoir of James P. Tuttle, New York City, N. Y., and Memoir of Louis Straus, St. Louis, Mo."—By Joseph M. Mathews, M. D., of Louisville, Ky.

These memoirs were inspired by precious memories of close personal association with the late Fellows of the American Proctologic Society, who were both charter members of that organization. In well chosen and in deeply sympathetic words the noble character and high professional worth of these lamented Fellows were outlined in a manner which did honor to their memory.

"A Review of Proctologic Literature from March 1912, to March 1913"—By Samuel T. Earle, M.D., of Baltimore, Md., Chairman of the Committee on the same.

In this review of Proctologic literature Earle quotes freely from the following authors:

Dr. Edward H. Goodman, of Philadelphia, Pa. (*Progressive Medicine*, December 1912, page 100), quoting from Ageron

(Archiv. f. Verdauungskrankheiten, 1911, XVII, page 584), "Constipation."

W. Ernest Miles, F. R. C. S. England (The Glasgow Medical Journal, No. 11, February, 1912, page 82), "The Treatment of Carcinoma of the Rectum and Pelvic Colon."

H. Grame Anderson, M. B., Ch. B., F. R. C. S. (British Medical Journal, 1912, Vol. I, page 129), "Solid Carbon Dioxide in the Treatment of Hemorrhoids."

Dr. Walton Martin, New York City (Annals of Surgery, Vol. LV., 1912, page 901), "Carcinoma of the Rectum: Combined Abdominal and Perineal Rectectomy."

Harrison Cripps, F. R. C. S. England (British Medical Journal, 1912, Vol. II, page 843), "The Treatment of Rectal Cancer."

Dr. William J. Mayo, Rochester, Minn. (Annals of Surgery, Vol. 56, 1912, page 240), "The Radical Operation for the Relief of Cancer of the Rectum and Rectosigmoid."

Mr. Lockhart Mummery (British Medical Journal, Vol. 1, 1912, page 1427), "Recorded Cases of Intractable Constipation Treated by Operation."

Dr. Arthur W. Elting, Albany, New York (Transactions of the American Surgical Association, 1912, Vol. XXX, page 176), "Treatment of Fistula in Ano, with Special Reference to the Whitehead Operation."

Dr. Alexis V. Moschowitz, New York City (New York State Journal of Medicine, Vol. XII, No. 11, 1912, page 654), "The Pathogenesis, Anatomy and Cure of Prolapse of the Rectum."

Dr. William C. Lusk, of New York City (Annals of Surgery, January, 1913, Vol. LVII, No. 1, page 106), gives a description of "An Instrument for Establishing Fecal Drainage, with a report of its use on a case, and a consideration of the site for making a fecal fistula in low-seated intestinal obstruction."

Two new proctoscopes have been devised during the past year. "The 1912 Proctoscope," Jerome M. Lynch (New York Medical Journal, 1912).

"A new pneumo-electric proctoscope and sigmoidoscope," F. C. Yeoman (Journal of American Medical Association, 1912, Vol. LVIII, page 929).



There have been several reports of the use of Extra-dural Sacral Anæsthesia, von W. Stoeckel (*Zentralblatt für Gynakologie* No. 1, 1909), von Dr. Maryan Tobiaszek (*Zentralblatt für Gynakologie*, 33 Jahrgang, 1909), and Dr. Jerome M. Lynch (*Medical Record*, February 8, 1913, page 235).

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"A Method of Operation on Fistula Without Cutting Muscular Tissue."—By Rollin H. Barnes, M.D., of St. Louis, Mo.

This method is used in those cases of fistulæ which involve the sphincter muscles. An incision is made external to the sphincter, similar to that made when incising an ischio-rectal abscess. Through this opening the scar tissue is dissected out up to the internal opening. An incision is then made at the skin margin, so that the middle of this incision passes through an imaginary longitudinal line drawn from the internal opening. A submucous dissection is then channeled out up to the internal opening. Gauze drainage is kept in this until the external wound is healed sufficiently. Then the submucous tract, which remains, is incised under local anæsthesia. No muscular tissue having been cut, the function of the sphincters is preserved intact.

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"Report of a Case of Fecal Tumor Associated with Hirschsprung's Disease."—By Alois B. Graham, A. M., M.D., of Indianapolis, Ind.

Dr. Graham reported a case of fecal tumor associated with Hirschsprung's Disease, the clinical history of which is unique and exceedingly interesting. The patient, a young French woman, aged 27, stated that she had undergone three abdominal operations for Hirschsprung's disease, or megacolon.

Present illness dates from birth. Not unusual to go a week or ten days without a stool, and then evacuation was produced only by means of enemata.

At the age of 12, her condition was diagnosed as one of pregnancy on account of the vomiting and the appearance of the abdomen.

At the age of 19, she suffered an attack of complete intestinal obstruction due evidently to fecal tumor. She was operated, and a large fecal tumor was removed from the sigmoid. Six months later, she was operated for post-operative adhesions. No resection of the bowel or short-circuiting operation was performed.

At the age of 25, she suffered an attack of complete intestinal obstruction. She was operated, and a large fecal tumor was removed. Patient stated that the bowel was plicated in closing. Wound healed promptly, but she remained in the hospital for three months purely for clinical purposes.

August, 1912, she, for the third time, presented symptoms of complete intestinal obstruction. She had been absolutely constipated for seven days. Abdomen enlarged and everywhere tympanitic except in the lower right quadrant, where there was a dull area corresponding to a large tumor which could be readily palpated. Tumor, a fecal mass, was exceedingly hard and did not pit on pressure. It could be easily moved in every direction throughout the abdomen. Attacks of violent, colicky pains were frequent. Vomiting was persistent, pulse 120, temp. 101 F. Hydrogen peroxide, introduced into the rectum, had no effect on the tumor, but produced excruciating pains over the entire abdomen. Patient consented to operations with the promise exacted that nothing radical be attempted. She requested that the fecal tumor be removed, but refused to give her consent to any short-circuiting or resection of the bowel.

Median incision. No adhesions. Fecal tumor in sigmoid. Tumor of "stony" hardness. Its greatest circumference was  $19\frac{3}{4}$  inches, its weight was 64 ounces. The dilatation which was confined to the sigmoid was very marked, the greatest circumference being 20 inches.

Patient made an uneventful operative recovery, and was discharged from the hospital on the 10th day. She gained in weight and appeared to be in the best of health. She experienced no difficulty in procuring daily evacuations with the aid of small doses of cascara.

December 15, 1912, was the date of her last visit to the writer's office. At this time she was doing nicely. Inquiries as to her

whereabouts were made and the reports were to the effect that she has returned to France. Information was received the latter part of April that patient had gone to Chicago from Indianapolis. She evidently suffered another attack of intestinal obstruction. was operated there April 19, 1913, and died three days later.

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"A Further Consideration of Sir Charles Ball's Operation for Internal Hemorrhoids."—By Alfred J. Zobel, M.D., of San Francisco, Cal.

After a trial of this operation the author of the paper sums up his conclusions as to its value as follows: That, as a modification of the old ligature operation, it is better than the latter, in that it takes care of and avoids the recurrence of that revoluted anal skin ring which generally becomes markedly edematous immediately after these operations, leaving behind skin tags after the swelling subsides.

In every instance in which the essentials of Ball's technique have been followed out carefully the author's results have been exceedingly satisfactory.

The operation is recommended.

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"Deductions Based on an Analysis of 3000 Rectal Cases."—By T. Chittenden Hill, M.D., of Boston, Mass.

The principle object of this tabulation of 3000 consecutive rectal cases was to furnish data as to the relative frequency of the various affections of the rectum and colon. There was a total of 1120 operations performed in this series, and some deductions of a practical nature were drawn from this experience. It was found that rectal ailments were more common among males than females, the ratio being three to two.

Hemorrhoids formed a large proportion, 41 per cent of the total. Next in frequency were abscesses and fistulæ, 18 per cent, and the remaining disorders were tabulated as follows: pruritus ani 8 per cent, anal fissure 10 per cent, colitis 6 per cent, prolapsus ani and procidentia recti 3.7 per cent, cancer of the rectum



and sigmoid 2 per cent, benign growths 1.5 per cent, stricture 1.5 per cent, syphilis 2 per cent, constipation 2.8 per cent.

Other miscellaneous conditions were recorded which made up but a fraction of one per cent, such as anal verrucca, congenital stenosis, patulous anus, pilo-nidal sinus, furuncles, foreign body, incontinence, coccygodynia, trauma, sigmoid diverticulitis, etc.

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“Personal Reminiscences Upon the Subject of Proctology.”—By Jos. M. Mathews, M.D., of Louisville, Ky.

The author of this very interesting paper tells of his early experiences in his chosen field of endeavor. He relates his meeting many years ago with those renowned surgeons who have made St. Mark's Hospital, of London, so famous.

Having been called “The Father of Proctology,” he gratefully accepts the title, and, like a father, he offers good advice to, and will ever cherish what he now terms his offspring, the American Proctologic Society.

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“Z-Plastic Operation for Anal Stricture.”—By Wm. M. Beach, M.D., of Pittsburg, Pa.

The writer states that extensive cicatrices, resulting from trauma, and involving the partial or entire anal circumference, not infrequently resist the usual methods employed to restore the physiologic function of the anus.

He therefore employed what he terms a Z-plastic method when operating on an anal stricture. The principle underlying the procedure is the transposition of dermic tissue in such manner as to obliterate the crest of the fibrous band.

The first incision is made along the crest of such a band; then incisions are made at right angles from both ends, but running in opposite directions, thus approximating the letter Z. The flaps thus outlined are dissected up, transposed, and sutured. Various modifications are permissible, according to the extent of the stricture.

"Sphincteric Atrophy.—Causes, Consequence and Treatment."—  
By Ralph W. Jackson, M.D., of Fall River, Mass.

Muscular atrophy about the anus produces more serious consequences than hypertrophy.

The physiology of defecation is studied, and the action of the internal sphincter and of the external sphincter and levators sharply contrasted with their different innervation. This is preparatory to consideration and classification of the causes of sphincteric disuse and consequent degeneration.

Congenital causes are found in imperforate anus and congenital ano-vaginal cloaca. Coincidental with general weakness cases occur in infants, the aged, and the extremely ill. Traumatic causes are faults of protologic operations and aftercare, or obstetric lacerations, or due to prolonged divulsion by protruding piles or procidentia. Nerve causes are primarily sympathetic as in rectal stenosis, or central as in spinal cord lesions.

Degeneration or absence of one sphincter without impairment of the other is considered.

The unhappy consequences of sphincteric inadequacy are presented.

Treatment is preventive or restorative. Neither avails much when due to nerve causes, except possibly in luetic cases. Of first importance is the minimizing of trauma, both obstetric and proctologic (especially sphincteric incision). Repair of trauma should be immediate and accurate. Later attempts are much more difficult and uncertain on account of atrophic muscular changes, and often results must depend on cicatricial contraction and adaptation of other muscles, especially the levators, to sphincteric duty. Restoration of long over-stretched muscles is largely dependent on general treatment.

Sphincteric deficiency is a troublesome problem to every practitioner, and the prognosis is uncertain.

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"Further Observations on the Surgical Anatomy of the Large Bowel."—By Granville S. Hanes, M.D., of Louisville, Ky.

Few realize that the capacious portion of the colon is at its cecal extremity. The diameter of the average cecum is estimated

at three inches, which is about the same as the rectum, though the cecum and ascending colon have a much greater capacity than the rectum and lower extremity of the sigmoid. The large intestine gradually decreases in size from the cecum to the rectum; the descending colon measuring one and one-half inches, or even less, at its narrowest point. These physical conditions explain in a measure the locality to which large quantities of fluids are transported when injected into the rectum.

The question of antiperistalsis in the large intestine in man is yet to be settled. It has been suggested that anastalsis may be inferred to exist in the proximal human colon for the reason that rectal enemas have been observed to traverse the entire length of the colon and escape through an artificial opening in the cecum. Also, because surgeons have attempted to stop a fecal-fistula discharge by transplanting the ileum into the transverse colon and sigmoid, but without success. The fact that rectal enemas have been seen to pass through the cecal fistula is, he is confident, little evidence of the operation of an antiperistaltic force.

An ordinary colon tube was introduced two or three inches into the rectum of a dog, and through a funnel inserted into the proximal end of the tube was poured in bismuth-buttermilk, and by the X-ray the author observed it traverse the large intestine to the ileo-cecal junction with no sign of anti-peristaltic movements. Similar experiments were made on children with corroborating observations. He has seen a pint of bismuth in suspension, when introduced into the rectum of an adult, pass around to the cecum in a few minutes with no evidence of aid by anastalsis.

Under normal conditions peristalsis in the large bowel is a slow process, and it is no more than natural to suppose that anastalsis is also slow in its operation. The brief time, then, required for fluids to pass from the rectum to the cecum compels us to consider the influence of other and more potent agents on the intestinal contents. Two factors are in operation when fluids are conveyed from the rectum to the cecum. The first is the distensible and elastic nature of the intestinal tube; and the second is the hydraulic principle which controls fluids wherever they may be. If fluid is forced rapidly into the rectum that organ will be seen



to be widely distended; but this same fluid can be seen to make its way up the intestinal tube along the path of least resistance. The distended rectum, because of its elastic nature, presses upon the contents till every drop of fluid within its lumen is subjected to an equal pressure. So if additional fluid is forced into the rectum the same factors will continue to operate.

If the ileum is transplanted into the transverse colon or sigmoid the watery intestinal contents will be forced by the elastic intestinal tube in the directions of least resistance. The right segment of the colon is the capacious portion of the large bowel, so if fluids are under greater intestinal pressure in the lower bowel the fluid contents will travel up to the cecum.

The author says, that even if we do admit the existence of anastalsis in normal conditions of the colon, he does not believe it to be an important factor in conveying fluids from the rectum up into the colon.

Hanes had a series of three X-ray pictures made on the same individual to show what actually happens when tubes are introduced into the bowel. The first, shows a thirteen-inch proctoscope introduced its entire length. The distal end is one inch above the umbilicus. The second, shows an ordinary colon tube introduced its full length after the removal of the proctoscope. The tube passed along the sigmoid up to the highest point (one inch above the umbilicus), and then turned upon itself, the distal end passing back into the rectum. The third radiograph shows the bowel injected with bismuth buttermilk, and the thirteen-inch sigmoidoscope introduced again. This picture shows that it is impossible to pass any instrument high up in a normal colon, except by the greatest accident. The sigmoid is lifted up into the abdominal cavity; its lower arm is occupied by bismuth and the metal tube; while the upper segment of the sigmoid is seen very distinctly where it has dropped back from a point opposite the umbilicus into the pelvis to its junction with the lower extremity of the colon. He claims the latter radiograph proves that it is impossible to pass a non-flexible instrument beyond the first half of the sigmoid.

To control the outflow of fecal material in colostomies the author has found, in five cases operated since January 1 of this year, that the hard rubber rod can be allowed to remain permanently, when used as in the Maydl operation. The opening in the intestine is above the rod. A thin gauze dressing is applied over the bowel, and a strip of gauze is thrown around the knuckle of the intestine and overlying gauze is then tied under the supporting rod. The strip of gauze constricts both the upper and lower segments of the bowel, and exerts a most satisfactory control over these artificial openings.

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"The Ano-Rectal Line—Its Clinical Significance."—By Collier F. Martin, M.D., of Philadelphia, Pa.

After discussing the development of the anus and rectum, Martin states that the ano rectal line, or dentate border, has a very important clinical significance, in that it is the point at which both the blood supply and the nerve supply become differentiated. Above it the blood is carried by the portal circulation to the liver; while below it, the blood stream mingles with the general circulation by way of the inferior vena cava. Above it, the rectum is supplied only with visceral or sympathetic nerve fibers, while below it, the anus and its surrounding structures are supplied with spinal nerves, and by sympathetic filaments. These spinal nerves carry sensory impulses common to nerves having specialized cutaneous nerve-endings.

Below the ano rectal line, as evidence of irritation of the spinal innerva, sensory disturbances are expressed in terms of pain, itching, formication, and in alterations in spinal sense of touch, and temperature, with their modifications, such as dryness and moisture. Stimuli producing these sensory disturbances show their presence by exciting motor contraction, or by inducing alterations in secretion.

Above the ano rectal line all of the specialized spinal sensations are absent, only the visceral sensations being present. In the rectum it is only pressure and muscle-sense that appeal to our consciousness. This sensation is translated in the brain into a

desire for stool, which desire is inhibited or assisted voluntarily, as occasion may require.

Excessive spasms of the involuntary muscles supplied by visceral nerves produces an unpleasant sensation, which differs from pain of spinal origin in that it is difficult to localize, and may be described more as an ache, which is difficult to bear and exhausting to the patient.

Lesions of the crypts of Morgagni, since they involve both the visceral nerve supply of the rectum and the spinal innervation of the anus, are associated with many disturbances of the reflexes.

Infection, and malignant processes, occurring above the dentate border, tend to spread upwards, by way of the deep lymphatics, to the pelvic or uro-genital organs, or to the liver, via the portal system. Below the ano rectal line superficial abscesses result from infections of the proctoreum and the rectal crypts. Malignancy here is associated frequently with extension to the inguinal glands.

In general, there is a marked tendency for pathologic processes to limit their invasion to the embryonic structure in which they began; the ano rectal line being the "great divide" between the ectodermic and the entodermic structures. Rectal infection and malignancy rarely extend below the dentate border, while anal pathology usually remains below this line and the levator ani muscles.

Ano rectal symptomatology is equally differentiated. The subjective symptoms of a pathologic process bear little relationship to the lesion, per se, but depend upon the interference with the functions of the spinal or sympathetic nerve supply of the tissues involved, whether this interference be mechanical, inflammatory, or functional.

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"Further Observations on Pruritus Ani: Its Probable Etiologic Factor; Results of Treatment."—By Dwight H. Murray, M.D., of Syracuse, N. Y.

Dr. Murray's paper, which is a continuation of his investigations on the etiology and treatment of pruritus ani, gave some



new points which he had observed during the past year, and his additional experience in the treatment of patients. He found no reason for materially modifying his former reports, but has gathered data which helped to prove the correctness of his previous work. He found streptococcic infection in three cases of pruritus ani and vulvae, and in four cases of pruritus that had involved the scrotum as well as the anus. These complicated cases improved, with the exception of two vulva cases, by the use of the vaccine treatment.

During the past year Dr. Murray has increased his former series of thirty-two cases, by twenty-five additional cases, in five of which streptococcic infection was not found. These cases showed other infections, which still further proves the coccigenous nature of pruritus ani; and also demonstrates that other bacteria than streptococcini may bear a causal relationship, as was hinted in his first paper on this subject.

His cases, so far as he has been able to determine, have not been affected by diet. Since Dr. Murray discovered the infection in pruritus ani he has never interfered with the food of any patient; neither has he restricted them in the smoking or drinking habits. The improvement under the vaccine treatment, without regard to eating, drinking, or smoking, gives him additional proof for the bacterial theory.

During the past year he has carefully investigated as to whether or not the itching extends into the anal canal beyond Hilton's white line, with the result that only in one instance did it extend beyond that point, and then only for a short distance.

His investigations of the past year have given him additional proof that pruritus ani is not caused by any local lesion within the anal canal, and that when such lesions exist with pruritus ani they are coincidental.

In the cases that have been operated for local lesions the pruritus ani has not been permanently improved as a result of the operative procedure.

He said that rectal and general surgeons have observed many cases of fistulæ with discharges upon the anal skin, without pruritus ani being present. The same is true of hemorrhoids, con-

stipation, and other rectal lesions, pruritus ani occurring in only a small proportion of such cases. He, therefore, still holds that when pruritus ani exists in connection with other lesions it is a coincidence. In his 1912 report he gave a summary of nine hundred consecutive rectal cases wherein this fact was established fairly well.

He referred to the opsonic index, or more properly the coefficient of extinction of opsonins, and claimed that much valuable information was to be gained by this test.

His work shows that if a complicating infection exists, and other bacteria than streptococci are found to be the sole invading organisms, we must use the corresponding autogenous vaccine. The opsonic index, following a bacterial diagnosis, is the proper method for determining this.

The results of treatment, and the history of patients, prove to him that if pruritus ani exists with local lesions which demand operation, that the prognosis depends upon whether a skin infection is present or not. If the skin infection is present the local lesions may be cured by the operation, but the patient should not be led to believe that the pruritus ani will also be cured by it. Per contra, if a skin infection, does not exist with a local lesion and itching, the prognosis may be that the itching will very likely cease with the cure of the local lesion.

After personal investigation in treating; watching results; noting how cause, effect, and results dovetail together; comparing these investigations with statements and theories made in textbooks, and in articles appearing from time to time in medical journals, and containing no definite pathology or scientific reasons for cause and effect; Murray can not understand how the profession will uphold such theories, rather than the bacterial theory which has been so well proven in his own cases and confirmed by other observers.

The uniformity of the bacteriologic findings is a strong support for the bacterial theory of the etiology of pruritus ani. The chronicity of all the cases; the uniform symptoms; the similar condition of the skin; the locality; the regularity as to the time of attacks; the uniformity of itching outside of Hilton's white

line; the uniform blood findings as to the coefficient of extinction of opsonins; and the fact that all local applications which have given beneficial results in the past have contained a strong germicide; all point directly to a common cause. Further confirmation is found in the uniformly good results of treatment with autogenous vaccine of the variety of bacteria against which the patient has a low phagocytic power; and in the lack of good results by the various haphazard methods of treatment in general vogue.

His reference to fissures in previous papers having been misunderstood by some, he desired to state that he had referred only to fissure-like cracks of the skin, and not to anal fissures or ulcers.

Endo's medium is used to plate the cultures. The vaccine employed is of the strength of one billion to the cc., beginning with two minims, or one hundred and thirty millions.

Dr. Murray refers to a paper written by Dr. Jerome Wagner, of New York City, published in the May number of the Medical Review of Reviews, in which Dr. Wagner reports some erroneous ideas claimed to have been gleaned from reading Murray's first two reports. Dr. Wagner not having been able to confirm these reports, Dr. Murray pointed out the errors of technique in Dr. Wagner's work, as well as his errors in the interpretation of the reports.

Dr. Murray gave statistics, in favor of his theory, drawn from three years original work on the subject; he also gave a summary of the results of treatment, showing the favorable clinical results with autogenous vaccines in a large majority of the cases treated.

He summed up his conclusions, as follows:

1. Results of the past year's work continues to uphold the correctness of the bacterial theory of pruritus ani.
2. It is advisable to make a bacteriologic examination of all cases of pruritus vulvæ; also of cases of scrotal pruritus.
3. The co-efficient of extinction of opsonins is a valuable aid in diagnosis in complicated and obstinate cases.
4. Pruritus ani in this series of cases rarely extends above the white line of Hilton, and it is still subjudice.
5. The presence of a skin infection with a local lesion begets an unfavorable prognosis for the cure of pruritus ani by an operative procedure.



6. The absence of a demonstrable skin infection and the presence of a local lesion, with pruritus ani, will justify us in making a favorable prognosis for the cure of the pruritus ani by an operative procedure.

7. Pruritus ani, with such infection as we have demonstrated, and a lesion existing in the anus or rectum, according to his statistics, is a coincidence; and the latter lesion is not the cause of the pruritus ani.

8. The sphincter muscle does not allow a leakage of rectal mucus upon the anal skin of one who has pruritus ani, except there is a patulous anus, any more than it does in a normal individual who has no pruritus ani. The moisture of the parts is due to a low grade inflammation of the infected anal skin.

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"Treatment of Fistula-in-Ano."—By J. A. MacMillan, M.D., of Detroit, Mich.

There are three essentials for the operation for this condition:

1. An incision that will open up every ramification of the fistulous tract.
2. The excision of the fibrous tissue which forms its walls.
3. Free drainage, and a regulation of the granulation by means of pressure by gauze packing.

## Extracts from Home and Foreign Journals.

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### SURGICAL

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#### CERTAIN DANGERS OF THE ADENOID OPERATION.

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Grove *Johns Hopkins Hospital Bulletin*, April, 1913), calling attention to the fact that the adenoid operation is the one most frequently practiced by the laryngologist, the rhinologist, or otologist, and is regarded by the laity and many physicians as absolutely harmless, groups the most frequent and dangerous complications under postoperative bleeding and postoperative infection. He quotes seven fatal cases of bleeding reported by Barrell and Orr in 1907, and notes that Burger is credited with having collected from the literature 40 cases of severe bleeding with three or four deaths. Since the operation is done by the sense of touch and always in an infected field, it is obvious that infections must frequently form postoperative complications. Practically all the acute infectious diseases of childhood have been observed as postoperative sequelæ. Cases of scarlet fever and diphtheria are due to the fact that the operation was carried out in the incubation period of these conditions, or it was performed on patients who were chronic bacillus carriers, in whose throats the bacillus of diphtheria or the virus of scarlet fever was present in latent or in a non-virulent form.

Grove concludes that it would be well to operate when no local infectious processes were present in the nose, naso-pharynx, or ear. We should do well, also, not to operate during local epidemics of the acute infectious diseases of childhood, especially if the patient had come into any sort of contact with children ill of these diseases.

Finally, we all realize that the ideal method of working is to make hospital cases of all these operations and to keep the patients under observation for a considerable period of time. This is practically impossible in all cases, but we can, nevertheless, keep our patients under observation for longer periods of time

than is as present customary, especially if these patients are adults. If after two or three weeks no complications appear we can discharge the patients from our care.—*The Therapeutic Gazette*.

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#### GASTRIC ULCER, TREATMENT OF PERFORATED.

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While the best local treatment for a perforated gastric or duodenal ulcer is to close it by suture, and the abdomen with drainage, there can be no doubt that one of the first difficulties which a surgeon meets in these cases is to close the ulcer soundly and satisfactorily. The reason is that the stitches cut through the sodden, swollen tissues in which they have to be inserted to close the perforation. One can not but surmise that many perforations deemed to be closed satisfactorily at the operation are not so an hour or two later. In spite of this, patients who have been operated upon continue to recover. Hence there is a justifiable suspicion that cases of perforated gastric or duodenal ulcer can recover when the perforation is not closed, or at least imperfectly closed.

Since 1908 the author has used the principle of isolating, but not closing, the ulcer on 15 occasions, including one perforation on the posterior abdominal wall. In two of these the end of a gauze plug was held by a cat-gut stitch in the aperture of the perforation. These patients have done uniformly well. As a rule, the longer the time spent in suturing the perforation, the greater the insecurity of the closure. Isolation of the perforation by tamponade has the advantage of being simple and of saving valuable time. No patient on whom it was done ever needed a primary or a secondary gastroenterostomy. No patient had a gastric fistula or has in any way, as by delayed convalescence, showed signs of non-closure of the ulcer. When the perforation is not sutured the end of a gauze drain is always placed next the ulcer, and brought out of the wound. This drain is removed in about thirty-six hours under anæsthesia with nitrous oxide gas and not replaced. After operation the patient is placed in the Fowler position, saline solution is administered rectally and continuously, and nothing but water is given by the mouth for three



days. Recently it has been the author's practice to enclose the isolating tampon of gauze in a longitudinally split-rubber tube, a cigarette drain, part of which is left in position after the removal of the gauze.

Having shown the practicability of the successful isolation of a perforation with a gauze tampon, the author suggests that at first an attempt be made to close the perforation by suture. If this fails or appears to afford a doubtful closure of the perforation, no further time should be spent on it, but the ulcer be plugged and drained. The author believes that the isolation of these ulcers by tampon will become the first and most popular line of treatment except in cases operated upon very early after perforation.—E. M. Crane (*Lancet*, March 1, 1913.)

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#### RESECTION OF CANCER OF THE ESOPHAGUS.

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Denk describes a method of resecting the esophagus for cancer below the bifurcation of the trachea. Through an incision 20 cm. long parallel to the left costal arch the esophagus can be loosened with the finger up to the bifurcation without bleeding and without injuring the pleura. He supplements the finger with a little instrument like a vein stripper. If the cancer can not be separated out without cutting, he concludes with a gastrostomy. If the cancer proves removable, he then exposes the esophagus in the neck and mobilizes the upper portion in the same way. Then with both hands, one working from below and one from above, it is possible to detach the esophagus all around without the least difficulty. He then clamps it above the cardia and applies on each side two 1 cm. wide metal clips, like Cushing's aneurysm clamps, and after applying a clamp on the cardia beyond, the esophagus is cut across close below the clamps. Ligature can be applied above the clamps to be a further protection. The entire esophagus is then, with its cancer, drawn out through the incision in the neck and the cancerous segment excised, the central stump drawn into the subcutaneous tissue in the front of the chest and the open end sutured to the skin. The operation concludes with a gastrostomy; or this can be done two or three weeks before the radical

operation. After healing he connects the stump of the esophagus with the gastrostomy tube to restore the functioning of the gullet. The operation has not yet been applied in the clinic but its feasibility has been abundantly established on the cadaver and on animals. The advantage of the method is in the avoidance of any injury of the pleura and in the impossibility of infection of the mediastinum with the contents of the esophagus, while the dangers are no greater than with the transpleural methods.—*The Journal of the American Medical Association*.

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## MEDICAL

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### POISON-OAK EXPERIMENTS.

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In the *Interstate Medical Journal* for February, 1913, von Adeling writes on this practical topic. He believes potassium permanganate is curative. It acts probably by combining chemically with the toxin, and is, therefore, more effective early and when the papules and vesicles are opened by vigorous rubbing with the remedy.

There are two objections to the use of potassium permanganate: (1) It produces a mahogany-brown stain which at times is difficult to remove. But a one-per-cent solution of oxalic acid usually removes the color. It should not be forgotten that this acid is a violent poison and should be used with great caution. (2) After the use of the permanganate and oxalic acid the skin is often left severely cracked. This is met by soothing ointments or oils.

Peroxide of hydrogen, ammonia, hyposulphate of sodium, and other commonly used applications tested by the control method showed little or no therapeutic value.

Bearing in mind that the disorder is caused by a poison on the skin, the first thing to do in treating the dermatitis is to forestall the appearance of new patches by removing all poison from the surface. This is easily accomplished by a soap-and-hot-water bath of the whole body, especially the hair. After the bath, fresh

clothing should be put on, not even wearing the shoes that were near the plants. The itching is relieved by water as hot as can be borne, and is often a pleasant treatment. Remedies, palliative or curative, may then be applied. When the vesicles become infected with bacteria, the dermatitis is quite different, and will call for antiseptic or bactericidal treatment. Potassium permanganate will then be found of small value and hot bichloride packs of much value. The following hospital case illustrates this point:

A 25-year-old-male was poisoned four days ago. Both arms showed marked edema, vesicles and pustules. He had already applied cold permanganate six or seven times, so hot permanganate was applied frequently by the nurse. There was no improvement in twenty-four hours. When the solution was changed to hot bichloride, and the arms bandaged with the same solution, recovery began and progressed rapidly.

Von Adelung concludes that the toxin of *Rhus diversiloba*, in contact with the skin of susceptible persons, causes a non-contagious dermatitis, strictly localized to the areas of contact, and not disturbed by the blood or lymphatic streams. The toxin is not destroyed by 100° C. for one hour, is not volatile, and poisons "at a distance" only through mechanical carriers. The most valuable remedy yet known is potassium permanganate, which is most effective when applied hot.—*The Therapeutic Gazette*.

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#### PRESENT STATUS OF ORGAN TRANSPLANTATION.

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At a recent session of the Berlin Surgical Society (*Berliner klinische Wochenschrift*, June 16) Stich gave a much needed sketch of this subject. Seven years ago Carrel began his autoplasmic work, and it was thought highly probable that animal organs could be successfully implanted from an animal to another of the same species and from man to man. This held quite good for segments of blood vessels and in invertebrate animals the heads could be exchanged. Carrel's experiments showed that neither homoplastic nor heteroplastic transplantation could be successfully made between vertebrates. The transplants grow in, but degenerate within a short time. The only exception is



tumor transplantation. In regard to homoplastic transplantation, this is said to be possible at times in animals which are consanguine. Many remarkable cases of homoplastic transplantation seemed for a while to have been successful. Carrel, Unger, Sajo, Ullman, and others have reported cases of kidney transplantation of all three types, some on human beings. Carrel and Unger have shown the practicability of homoplastic transplantation in animals, while quite a few cases of the heteroplastic type have succeeded. In human beings, he said, failure awaits either form of transplantation. It is claimed by Unger, however, that remarkable instances of prolongation of life as a result of transplantation justify occasional resort to the latter, when all other measures fail and the patient is still responsive to treatment. He implanted both kidneys of a large ape in a girl with uremia. The kidneys were permeable in thirty-two hours and showed no sign of degeneration.—*Medical Record*.

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#### CREOSOTE FOR PULMONARY TUBERCULOSIS.

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Born of a conviction covering a large experience of over twenty-five years, Dr. Beverly Robinson is convinced that creosote, when properly used, is the best medical adjunct to fresh air, sunlight, and good food, which we possess in the treatment of pulmonary tuberculosis. In order that it may be curative, creosote must be used with intelligence and persistently during many months, both internally and by inhalation. Internally, Robinson prefers the following formula:

R Beechwood creosote (Merck) qtt. vi

Glycerine            ℥i

Rye whiskey        ℥ii

M. et sig.: One dessertspoonful every 2, 3 or 4 hours, diluted with a little water.

The best formula for inhalation is:

Beechwood creosote (Merck)

Alcohol

Spirit of chloroform    aa ℥i

M. et sig.: Use 10 drops on the sponge of a perforated zinc inhaler.

The inhaler should be used for a few minutes at a time in the beginning, until the patient becomes accustomed to it. Later (after a week or more), it may be used for half an hour at a time. Finally, it may be used almost continuously during the day, and frequently all night without interfering with sleep. Whenever the inhaler is used continuously, a small amount of creosote is required internally, and on the contrary, when the inhaler can not be used frequently and for a long time, more creosote should be given internally. Following this plan of treatment, according to Robinson, most patients are relieved of many of their unpleasant symptoms. It will help cure a large number; it will hurt none.—*Medical Review of Reviews*.

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#### LARYNGITIS, RELIEF OF DYSPHAGIA IN TUBERCULOSIS.

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The following procedure is employed by the author: There is placed, or the patient places himself, on the tongue 0.3 to 0.4 Gm. (5 to 6½ grains) of an absolutely dry powder of orthoform or anæsthesin. A few movements of deglutition, performed without previous admixture of saliva with the powder, cause the latter to descend to the level of the epiglottis and arytenoepiglottidean folds. On its way it comes in contact with the infiltrated areas or ulcerations covering the entrance to the larynx, and in a few minutes the patient is able to swallow without distress. Where the ulcers are in the interior of the larynx, however, the measure is not so effectual. The dose referred to can be repeated three or four times daily for several weeks without any inconvenience. The procedure is also recommended for cases of quinsy and after operations on the tonsils.—Hinsberg (*Journal de medecine et de chirudgie pratiques*, March 10, 1913).

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#### POSSIBLE CONTRAINDICATIONS FOR ANTITYPHOID VACCINES.

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There has been some hesitation, says the *Interstate Medical Journal*, about adopting typhoid immunization, and this would appear to have been wise. Spooner finds that typhoid vaccine has had the effect of activating non-typhoidal disease which was latent

or chronic at the time of the injection. Combe and Lewis also advise considerable care to exclude other diseases before vaccination for typhoid is undertaken. It ought not to be performed except in perfectly healthy subjects. Sore throat, pains in the limbs, influenza and pulmonary affections, acute gonorrhea and primary and secondary syphilis exclude its use. Chronic affections are more important as possible contraindications. Special attention should be paid to the suspected tuberculous individual. Typhoid antigen produces the same effect as tuberculin on the temperature of tuberculous subjects. An abnormal reaction in a subject who does not present any obvious trace of this disease, in the absence of a previous attack of typhoid, suggests latent tuberculosis. In cases with a history of past tuberculosis, though apparently cured, and in which the general health is satisfactory, antityphoid vaccination, if required, should be given cautiously. If marked constitutional reaction follow it is preferable to discontinue the vaccination. In the case of malaria, vaccination should be done between attacks, fifteen grains of muriate of quinine being given with each injection. Otherwise it will bring on an attack. Cachexia from any cause, organic heart or kidney disease, diabetes and mucous colitis are held as contraindications. It should not be given to females during the menses, nor to exhausted, fatigued subjects. Combe and Lewis believe it is to be absolutely unsafe in civil life.—*The Medical Brief*.

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#### WOOD-ALCOHOL BLINDNESS.

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H. Woods, Baltimore (J. A. M. A., June 7), reports two cases of blindness from wood alcohol in addition to those formerly reported by him. His object in reporting them is to arouse, if possible, a sufficient medical public opinion to bring about legislation that will protect unsuspecting individuals from misfortune from this source. In one of the cases the blindness is attributed to the external use of wood alcohol; in another from drinking supposed and mislabeled whiskey containing it. The cheapness of the substance is a temptation to manufacturers and dealers, and the discovery that it could be deprived of its nauseating qualities has been



a misfortune. He remarks on the singular fact of the different susceptibility of individuals, some persons seeming to be able to take considerable quantities with immunity. The preventive methods Woods recommends, in case its manufacture can not be prohibited, are, first, making it mandatory to leave it undeprived of its nauseous qualities or else making it otherwise unfit for drinking. The State Board of Health should control its use, and individuals, firms or corporations utilizing it should be obliged to report the fact to the Health Board. Its use in vaults, vats or unventilated places is a terrible menace to society and life, and should be regulated. Those using it should take special pains to instruct their employes as to its dangers, and wherever it is sold it should be with the usual precautions attending the sale of dangerous poisons.—*Maryland Medical Journal*.

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#### HYPODERMIC INJECTIONS OF DISTILLED WATER.

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The hypodermic injection of distilled water alone produces very remarkable results. Our readers are familiar with Schleich's method of inducing anesthesia in this manner, and now an English practitioner, G. Arbour Stephens, asks, in a letter to the *Lancet* for March 15, 1913, that physicians test, and if possible corroborate some very good curative results he has had in the treatment of syphilis, by the injection, every third day, of six to eight c.c. of distilled water into the subcutaneous tissue of the back. After three doses all the patients looked and felt much better and their ulcers appeared very much cleaner. After each dose the temperature showed a rise supposed to be characteristic of vaccine treatment. In three weeks Mr. Stephens had very gratifying results in ulcers of the cheek and leg and in rupia with abscesses threatening to break. No other treatment was used.

Taking into consideration the curious results obtained in tuberculosis by the hypodermic injection of various agents, along with the experiments of Mr. Stephens, both the physical and the psychic effects of such injections seem to deserve further study.—*The American Practitioner*.

## OBSTETRICAL

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### -- PELVIS, CONTRACTED, PROCEDURE FOR FACILITATING DELIVERY IN.

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The procedure recommended by the author consists in putting a cushion under the sacrum of the parturient woman and, with attendants on either side, having the patient's knees carried up and pressed against the middle of the abdomen, with the legs turned outward( during each pain. By this method the sacroiliac joints are placed on the stretch and the promontory of the sacrum tends to recede in a posterior direction. The anteroposterior diameter of a contracted pelvis can thus be increased and, according to the author's experience, living infants successfully delivered in cases where this would not otherwise have been possible.—G. Freudenthal (*Berlinger klinische Wochenschrift*, April 14, 1913).—*Med. Review of Reviews*.

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### WHEN IS THE HIGH FORCEPS OPERATION JUSTIFIABLE?

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James A. Harrar, attending surgeon at the Lying-in Hospital of New York, gives, in his hospital *Bulletin*, the following as his conclusions in regard to the high forceps operation, basing them upon his own work and the work of others in the service of this hospital:

High forceps must always be considered a major operation, to be performed only by the trained obstetrical operator.

It is never to be selected before labor as the ultimate operation; in other words, it is not an elective operation.

High forceps is preferable to version in the treatment of dystocia due to contracted pelvis.

Before applying forceps to the floating head, be assured that the head can be made to engage in the brim of the pelvis with suprapubic pressure properly directed.

If in a contracted pelvis the head will not thus catch or bite in the brim, and if there is distinct overlapping, it is almost certain

that it can not safely be delivered with forceps, except with the aid of pubiotomy, and, finally,

*Situations do arise* in which it is justifiable to apply forceps to the head above the brim.

(1) *In normal pelves.* In delayed dry labor when interference becomes urgent on account of the condition of the mother or the child.

(2) In deformed pelves of medium degree. When it is possible, with one or two moderate pulls, to draw the largest diameters of the head through the pelvic inlet.—*The Medical Brief.*

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#### POSTCONCEPTIONAL AND HEREDITARY SYPHILIS.

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Jean Bobrie (*Etude sur la Syphilis*, etc., Paris, 1912), gives the following conclusions from his study of postconceptional syphilis and heredity of syphilis. In the absence of all treatment we may find placentas that are macroscopically healthy along with children evidently syphilitic. Nevertheless, maternal treatment has a marked effect on placental hypertrophy. The gravity of the syphilis of the fetus bears no relation to the hypertrophy of the placenta. Hydramnios is exceptional. At whatever time of pregnancy the maternal chancre is contracted the fetus is still infected. The degree of infection varies with the time of infection; the maximum gravity, causing macerated fetus, is at the third month; the gravity then decreases. The fetus never receives a true immunity; while there may be no evidence of syphilis the disease is still present in a latent form. Postconceptional syphilis is more serious for the existing pregnancy than for a later one. The fetus is always infected long before the roseola appears; infection occurs as soon as the mother has been attacked by the chancre. The most effective treatment is mercury in the form of soluble salts or pills; gray oil and salvarsan have not so good an effect by far. Hereditary syphilis can only be transmitted to the fetus by way of the placenta; the spermatozoon which contains a treponema can not fecundate an ovum. Exceptions to Colles' law are not true. Mothers who do not show syphilitic lesions are still infected, the syphilis being latent. Heredodys-



trophy is a consequence of syphilis, but not syphilis itself; such infants can become infected by syphilis, and it is then transmissible by the germinative cell only.—*Arch. of Pediatrics*, May, 1913.

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#### SERIOUS COMPLICATION FOLLOWING USE OF PITUITRIN.

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A woman of 32 was in labor with her first child. The cervix was rigid, the membranes ruptured, the labor pains weak and far between, the os dilated about the size of a silver quarter. The third day an injection of pituitrin was given, two hours later a second injection and the cervix was slit. Five hours later a third and two hours later a fourth injection of pituitrin was given. They were followed in half an hour by labor contractions so excessive that they kept up practically continuous for two hours, with spasmodic closure of the cervix. Finally pain in the sacral region became intense, requiring morphine; the temperature rose and also the pulse, and a mixture of amniotic fluid and stool escaped from the cervix. As a consequence of the two hours' pressure of the fetal skull on the sacrum from the intense contraction of the uterus, under the action of the pituitrin, the tissues between had been destroyed and a fistula was formed between the rectum and the cervix. The child was delivered with forceps and died the seventh day from sepsis.—*The Journal of the American Medical Association*.

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#### QUININE IN THE TREATMENT OF INCOMPLETE ABORTION.

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The oxytoxic properties of quinine have long been recognized by the profession, but its exclusive employment in the treatment of incomplete abortions has never been adopted by anyone, to my knowledge. Ergot in these cases is unsatisfactory, as it causes as forcible contractions of the cervix as any other portion of the uterus, whilst quinine acts chiefly upon the fundus. On being called to a case of this kind, I administer six grains of quinine at once and three grains every hour thereafter until the womb is completely emptied, which never fails to occur in a few hours. This

practice I have constantly followed for seven years. Prior to that time I employed the scraping process, usually with the forefinger of the right hand, in removing the adherent placenta. Why I continued this procedure so long I can't conceive, to the great annoyance of my patients, sometimes necessitating the use of an anesthetic and always that of an intrauterine douche. The treatment of incomplete abortions by quinine has many advantages, one of which is the absolute necessity of secrecy, in many cases.

I have more than once had under my care girls of respectable parentage, with retained decomposing products of conception, whose families had rather seen them carried to an untimely grave than have their disgrace made known, even to a physician. I have been afraid to hint at the condition present and dared not even ask for a vaginal examination. There could be no objection to the nature of the case being revealed through the expulsion of the contents of the uterus by quinine, as none but the one in immediate attendance need know anything about it. It is surprising to me that abortionists, if they will continue their nefarious calling, do not employ quinine instead of mechanical means, as it is safe and will always cause the womb to disgorge at any state of gestation, particularly if it is preceded by a drastic purgative, such as a compound cathartic pill. A short time since I was called to the bedside of a young married woman who had brought on a miscarriage by introducing a stiff rubber catheter into the uterus. When I arrived I found, as is usually the case, that the fetus had been expelled, but the placenta was still adherent. Fever had set in and she was becoming ill. I gave her quinine, and by the next day she was comparatively well. This woman told me she was taught to use the catheter in this way by her cousin, who lived in a large city and who had, under instruction from a physician, rid herself of the burden of carrying six children to full term in the same way. I have no doubt that many women in our large cities, who are left by abortionists to die of sepsis, might be saved by the timely and proper administration of quinine. Of all the procedures I have adopted since entering the medical profession, the treatment of incomplete abortions by quinine has been the most satisfactory, as it has always been successful.—*Maryland Medical Journal*.

## Editorial

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**PUBLISHER'S NOTICE**—The Journal is published in monthly numbers of 48 pages at \$1.00 a year, to be always paid in advance.

All bills for advertisements to be paid quarterly, after the first insertion of the quarter.

Business communications, remittances by mail, either by money order, draft, or registered letter, should be addressed to the Business manager, C. S. Briggs, M. D., corner Summer and Union Streets, Nashville, Tenn.

All communications for the Journal, books for review, exchanges, etc., should be addressed to the Editor.

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### BRITISH MEDICAL ASSOCIATION.

The eighty-first annual meeting of the British Medical Association was held at Brighton July 22 to 25, 1913. There were about thirteen hundred members present and the most of them brought their wives and daughters. The council or legislative body met three days before the main body convened and had time to settle about the business and medical politics. The mornings were given up wholly to scientific work and after one the British doctor gave himself entirely to pleasure. And why shouldn't he do so? Doctors are entitled to recreation and how better than with their fellows of the profession at their annual meeting? They certainly did the social act as of long experience. The Mayors and Mayoresses of Brighton, Howe and Eastbourn and the municipalities of the same, all adjoining towns, vied with each other as to who could do us the more honor. Private individuals as well did the same, while the members of the local profession of Brighton and vicinity did their very best. Numerous excursions to places of interest in the vicinity were given. The Saturday following the meeting was entirely given up to excursions. Throughout the week there were numerous games of cricket, golf and croquet. The visiting ladies were given an extensive motor car ride every morning, which they very much enjoyed, as the country about Brighton is beautiful. Brighton is England's most popular seaside resort, and being so near to London, but



little more than an hours ride by train, is almost a suburb. Brighton is in fact often spoken of as London.—E. S. McK.

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#### A FRIGID FOURTH.

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It was a far cry from a Cincinnati Fourth of July, with its heat and dust and endless noise, to the Arctic Ocean and the Midnight Sun. It was on the afternoon of the 4th of July, 1913, at 4 o'clock, that my wife and I, with about 40 other Americans and as many other folk in the good yacht Vega, with her Norwegian crew, crossed the Arctic Circle. We have elaborate diplomas to that effect given us by Neptune who came up out of the sea with his luxuriant hair of untwined rope. The ceremony was quite interesting. At the moment we crossed the Arctic Circle the four guns of the ship were fired by four young ladies representing each nation on the boat. At dinner that evening everybody dove down into their trunks, got out their best clothes and put them on. The band played all the patriotic American airs and the American flag was in evidence, even the ship that day carried the flag of the United States. That night was our first opportunity to see the Midnight Sun, and we saw it, bright and clear. It is an interesting sight to see the sun at midnight just about to set, then change its mind and go on and up. It is strange also to see the midnight sun in the north instead of in the south as the mid-day sun. We saw the sun at midnight three times out of the five opportunities. We had a fortnight of daylight, for if the sun is down an hour or two it is not dark. Midnight was the hour for functions. The band played, then the guns were fired, the people danced and lunched at midnight. Sleep was out of the question. I'll never forget the Midnight Sun.—E. S. McK.

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#### ADDRESS IN SURGERY, B. M. A.

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Sir Berkeley Monynihan of Leeds delivered the annual address in Surgery at the eighty-first annual session of the British Medical Association at Brighton. He spoke for an hour with a delivery and diction which was perfect, plain and clear; anyone could

understand him, yet he enunciated truths and wisdom without stint. He discussed the pathology of the living possibilities of diagnosis in the living, chronic ulcer and carcinoma, reduction of the dread of operation of surgery, gifts to medicine, surgery, and its revelations. He certainly dealt kindly with the surgery and surgeons of America. Commencing with the great boon of the discovery of the anæsthetic power of ether (he does not use chloroform), the speaker went on to compliment in the highest terms, among others, the following American surgeons: Senn, Murphy, Crile and all the Mayo clinic. He dwelt much on those surgeons who attack their patients with canine ferocity and much preferred that surgeon who had the heart of a lion, yet the hand of a lady; not the one who had the claws of a lion and the heart of a sheep. Those who have known and consequently loved Sir Berkeley were not surprised at him rising to any height. Those who listened to him for the first time were simply held by both his oratory and his personality. Sir Berkeley Monynihan is certainly a gift from the gods to surgery.—E. S. McK.

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DENTAL INTERNE (MALE).

June 18, 1913.

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The United States Civil Service Commission announces the postponement from June 4, 1913, to June 18, 1913, of the open competitive examination for dental interne, for men only. From the register of eligibles resulting from this examination certification will be made to fill a vacancy in this position at \$600 per annum, with maintenance, in the Government Hospital for the Insane, Washington, D. C., and vacancies as they may occur in positions requiring similar qualifications, unless it is found to be in the interest of the service to fill any vacancy by reinstatement, transfer, or promotion.

As the postponement of this examination is due to the fact that only one application has been filed for it, qualified persons are urged to enter it.

The scope and character of and requirements for this examination, as well as the list of places at which it will be held, are contained in Announcement No. 477.

Issued May 29, 1913.

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DEPARTMENT OF AGRICULTURE ADVISES THAT MILK BE  
PASTEURIZED AT LOW TEMPERATURES.

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In order to determine the best way of pasteurizing milk so as to kill the disease germs and yet not give the milk a cooked flavor or lessen its nutritive value, the Department of Agriculture, through its dairy division, has been conducting a series of experiments, treating milk at different temperatures and for different lengths of time. According to the report on these experiments in Bulletin 166 of the Bureau of Animal Industry, when milk is pasteurized at 145° F. for thirty minutes the chemical changes are so slight that it is unlikely that the protein (muscle building element) or the phosphates of lime and magnesia, are rendered less digestible than they are in raw milk.

Moreover, from a bacterial standpoint, pasteurizing at low temperatures is found to be more satisfactory than pasteurizing at high temperatures. According to Bulletins 126 and 161, where low temperatures are used the majority of bacteria that survive are lactic acid organisms which play an important part in the normal souring of milk. When milk is efficiently pasteurized at high temperatures, the bacteria which survive are largely of the putrefactive kinds, and milk so treated if kept for any length of time, has a tendency to rot instead of sour. From the standpoint of economy, the technologist of the dairy division finds that pasteurizing at low temperatures calls for less heat. It is found that it takes about 23½ per cent less heat to raise milk to the temperature of 145° F. than to a temperature of 165° F. A similar gain is a saving of the ice needed, because it will require 23½ per cent more refrigeration to cool milk to the shipping point when it is pasteurized at the higher temperature. The department, therefore, recommends that "When market milk is pasteurized it should be heated to about 145° F. and held at that temperature for 30 minutes."



## Reviews and Book Notices

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"Therapeutics of the Gastro-Intestinal Tract"—By Carl Wegele. Adapted and Edited, with Additions on the Diagnosis of the Diseases of the Esophagus, Diagnosis of the Diseases of the Gastro-Intestinal Tract, Duodenal Tube and Its Uses, Diseases of the Pancreas, and X-ray Examinations of the Gastro-Intestinal Tract. By Maurice H. Gross, M.D., Attending Gastro-Enterologist to the Har Moriah Hospital, and I. W. Hild, M.D., Attending Physician to the Har Moriah Hospital, with 52 Illustrations in the Text and two figures in colors on one Plate. New York, Rebman Co., Herald Square Building, 141-145 W. Thirty-sixth Street.

The editors decided upon the translation of this excellent treatise upon the "Therapy of Stomach and Intestinal Diseases" for the following reasons: "Because it comprises, in short, systematic arrangement, many important facts which are scattered in specialized works too exhaustive for the busy practitioner; because, rightly, according to the editors' views, it lays main stress upon and consistently carries out the dietetic, physical and hygienic treatment of gastro-intestinal diseases."

The editors have not only translated the work of the eminent specialist, but they have made extensive additions to it, especially in the parts relative to diagnosis. They have added a chapter on the esophagus, also on X-ray diagnosis and have entered fully upon the use of the duodenal tube—a comparatively new procedure that promises to become of great value in diagnostic methods. The English speaking medical public should feel indebted to the enterprising publishers for having placed before it a work of such value.

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"A Course in History—A Guide for Practical Instruction in Histology and Microscopic Anatomy."—By Rudolph Kraue, A. O. Professor of Anatomy at the University of Berlin. Translation from the German by Philipp J. R. Schmahl, M.D., New York, with 30 Illustrations in Text and 208 Colored Pictures, Arranged on 98 Plates After the Original Drawings by the Author. Part I and II. New York. Rebman Co., 1123 Broadway.

Part I of this useful textbook is devoted to microscopy—a guide to the technique of the instrument. It is a full and com-

plete description of the microscopic and its manipulations that will enable the student to use the instrument properly and instruct him in the preparation of histological specimens for study. The work is eminently practical and the instructions given are clear and easily followed. It is fully illustrated throughout, a feature that always enhances the value of a handbook.

Part II of this useful and artistic work is before us and we have been impressed with the wonderful educational value of this work. The publishers of the volumes deserve the thanks of the English speaking medical public for putting within its reach book of such intrinsic value as this and others which are issued from its press. It is handsomely illustrated throughout and the translator has done his work so well that the text is clear and comprehensible throughout. This volume has as its table of contents three parts—Part I, The Cell; Part II, The Tissues of the Animal Body; Part III, Organs. The student will find these volumes of invaluable aid in the study of Histology and Anatomy, and colleges throughout the country should not hesitate to adopt it as a standard textbook upon the subject.

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“Medical and Surgical Reports of the Boston City Hospital”—Sixteenth Series. Edited by George H. Monks, M.D., George G. Sears, M.D., and F. B. Mallory, M.D. Boston. Published by the Trustees, 1913.

We acknowledge with thanks the receipt of this volume of Medical and Surgical Reports of the Boston City Hospital. This is the first volume that has been published since 1905. The contents are unusually instructive and interesting as illustrating the advanced methods of treatment of diseases as carried out by this well known institution. Some of the papers are presented for the first time, some are reprints from articles published in other papers. To give our readers some idea of the character of reports presented we give the following as being among those that especially attracted our attention: The Use of Opium in Gangrene, by Geo. W. Gay, M.D.; a few cases illustrating Points of Interest in Renal Surgery, by Paul Thorndike, M.D.; The Operative Treatment of Fracture of the Patella, by John Bapst Blake, M.D.; The Luetin Test, by W. P. Bardman, M.D., and L. W. Gor-

ham, M.D.; Three cases of Spinal Cord Surgery, by Isador H. Coriat, M.D., and L. R. G. Crandon, M.D., etc. These are selected from thirty-three case reports, all of which are of the highest order of merit and scientific interest. We congratulate the editors and contributors upon having presented a volume of such value to the profession.

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"Text-Book of Ophthalmology In the Form of Clinical Lectures."—By Dr. Paul Roemer, Professor of Ophthalmology at Greifswald; Translated by Dr. Matthias Lanctton Foster, Member of the American Ophthalmological Society; Member of the American Academy of Ophthalmology and Oto-Laryngology, with One Hundred and Eighty-six Illustrations in the Text and Thirteen Colored Plates. Vol. III, New York. Rebman Co., 1123 Broadway.

This is Vol. III of a textbook of the two preceding volumes of which we have noticed in previous numbers of the Journal. This the final volume is the largest of the three and the system is a complete exposition of the subject in hand. The contents of this volume are XIII, The Pupil; XIV, Pareses of the Ocular Muscles; XV, Neurology of the Eye; XVI, Diseases of the Chorioid; XVII, Diseases of the Optic Nerve; XVIII, Diseases of the Retina; XIX, Functional Testing of the Eyes; Appendix and Index. The work of the translator is excellent and by his work he has placed English speaking specialists under a lasting debt of gratitude. We regard it as an exhaustive treatise upon Ophthalmology and recommend it as an up-to-date exponent of this important branch of medicine.

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"Genito-Urinary Diagnosis and Therapy."—For Urologists and General Practitioners, by Dr. Ernest Partner, Specialist for Urology, Berlin, Germany. Illustrated and Edited by Bransford Lewis, M.D., B. Sc., Professor of Genito-Urinary Surgery, Medical Department of St. Louis University, St. Louis; Genito-Urinary Surgeon to St. Johns Hospital and Frisco Hospital; Member of American Urological Association; American Association of Genito-Urinary Surgeons; American Medical Association, etc. Forty-three Illustrations. St. Louis. C. V. Mosby Co., 1913.

The translators of this volume deserve the thanks of the pro-



fession for having placed at their command a work that so well carried out the intentions of the author in placing before the general practitioner a most reliable guide in the management of such genito-urinary cases as fall within his province to treat. The translator, Dr. Bransford Lewis, is one of the foremost genito-urinary surgeons of the United States, and his selection of the work for translation is of itself ample guarantee of the high character of the volume. The book is essentially practical and deals with such subjects as are calculated to help the practitioner manage urologic patients. In its pages the genito-urinary specialist will find many useful hints and enlightening ideas. We are very much pleased with the work and unhesitatingly recommend it to our readers as a most useful guide and vade mecum.

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## Publisher's Department

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After the acute forms of malarial fever are checked by quinine, a slow form of fever sometimes persists not amenable to the quinine. In such cases Tongaline and Quinine Tablets will prove very efficacious.

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"Whatever be the nature of rheumatism and gout, every practical physician realizes that they are amenable to treatment and that it is a matter of as much importance to open the doors by which the poison goes out as to close those doors by which it goes in. Hence, prompt and thorough elimination must be obtained through the liver, the kidneys, the bowels and the skin."

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#### **GUNSHOT WOUND OF SHOULDER.**

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Dr. Fernando F. Barcena, Mexico City, Mexico, states:

A soldier was shot while in action in front of my office, Feb. 13, 1913—the ball being a soft-nose Mauser (the force of which was partly spent)—made a large ugly wound in the shoulder and fractured the scapula. The wound bled freely from small blood vessels, and the patient was in an alarming condition from loss of blood when I reached him. He was carried into my office, where I made some Glyco-Thymoline quite hot and I syringed the wound with it; this stopped the hemorrhage promptly, after which I dressed the wound once daily with Glyco-Thymoline full strength for two weeks, when I dismissed the case cured.

During the entire treatment there was not one drop of pus formed, which indicated to me that Glyco-Thymoline is an absolute antiseptic.

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CHARLES S. BRIGGS, A. M., M. D., Editor

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## Original Communications

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### A MEDICAL STUDY OF THE ALCOHOLIC PROBLEM.

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By T. D. CROTHERS, M.D.,

Supt. Walnut Lodge Hospital, Hartford, Conn., U. S. A.

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The alcoholic problem from every point of view is intimately related to the work and practice of physicians and their associations of every day life. When these phenomena are studied scientifically a new and unoccupied field of practice will appear, with possibilities of cure and prevention, that is at least startling.

If a study is made from the statistical side the facts are very impressive, particularly those that are unquestioned and in no way depend on personal opinions or theories. Thus studies of the mortality tables in England and America covering a long period of time, based on vital statistics both national and local, with collective studies of cities, hospitals, insurance companies, etc., indicate that alcohol is a direct and indirect cause of from 10 to 20 per cent of all deaths.

These are the highest and lowest estimates based on a great variety of tables and data. Statistics of mental disease and insanity from similar sources show that alcohol is an active and contributory cause in from 10 to 40 per cent of all forms of mental disease.

Studies of pauperism and idiocy carried on for years with the one purpose of discovering active causes show a remarkable



agreement of authorities in the conclusion that fully 50 per cent of these forms of degeneration are traceable to this one cause.

The studies of criminality are still more accurate. Thus, in 149,000 persons confined in the prisons for crime in America in 1906 over 50 per cent of the crimes were due to alcohol or were committed while under its influence. During the same year half a million persons were arrested for drunkenness and petty crimes associated with the use of spirits. These figures refer only to persons who come under legal notice or are treated by courts.

Reports from reliable authorities, particularly the interstate commerce in America, show that fully 50 per cent of all railroad accidents and disasters with automobiles and steamboats are due directly and indirectly to the mistakes and confusions of persons under the influence of spirits. These are the facts that are indisputable in America.

Beyond this, there must be a vast number of spirits and drug takers concealed or only known to their families and physicians whose death and disability are unmistakably due to the degenerations from the use of alcohol and its special personal influence.

A scene from the economic side. The direct and indirect influence of alcohol in the revolutions of business, society and personal failures and losses is still more impressive. Every physician is familiar with examples of diseases both mental and physical and degenerations and disabilities with changes and mortalities directly due to this cause; also the terrible fact that these degenerations are projected on into the next generation and appear in innumerable complex disabilities and legacies of disease.

Irrespective of all theory or opinion, the defects of spirit drinking ancestors appear in their children. A study of inheritance of descendants of spirit drinkers pointed out specifically, forms and phases of disease that come from this source. The general feebleness and low vitality with increased mortality are not opinions or theories, but are facts that admit of no other interpretation. This fact of transmitted degeneration from alcohol is verifiable in every community of the country.

These facts have been recognized in the public, but their scientific meaning and importance is not understood. The impression

prevails that they are great moral defects and outbursts of vice, and vicious element of human nature. Hence, great efforts are made to neutralize them by legal measures, education and spiritual training. The alcoholic problem has become one of the great topics of the church, state and society, based entirely on the moral causation.

Scientific study and examination of these persons by grouping the phenomena of cause and effect, fail to sustain moral theories of the causation, but indicate the presence of laws of degeneration and dissolution which move along exact lines from definite points and origins on through the various stages of growth, development and termination.

That which is thought to be vice and ethical or spiritual depravity, is seen to be the operation of physical and psychical laws, with startling uniformity of movement that can be studied and predicted with certainty. The mysterious epidemics whose frightful ravages were explained as due to malign spirits, when studied scientifically were found to be the result of forces that could be controlled and prevented.

The alcoholic problem is regarded in much the same way by many people, and many of the efforts to suppress and neutralize its influence are based on similar moral theories. Hence, the confusion of efforts and studies and widely divergent opinions. In the practical work of every physician the history of the use of alcohol brings new questions of the prognosis and treatment.

There is no disease that is not in some way or another made worse and more incurable by the fact of having used spirits to excess. Every advance in the study of the causes of disease confirm this. Thus, Bright's disease of the kidneys, consumption and pneumonia are the direct results of alcoholic excess. In each of these cases the power of resistance is enfeebled and the vitality is impaired and death is to be expected rather than recovery. Life insurance companies find in the mortality list these names as causes of death, preceded by a history of spirit and drug taking, and they are the subjects of controversy and question.

The modern surgeon is always careful to inquire concerning the habits of the patient, particularly of his use of alcohol before

the operation, and physicians in the medical wards of hospitals are always guarded in their opinions concerning persons with an alcoholic history.

These are everyday facts from experience and concern the actual conditions, not of theories of what they are. Going a little farther, careful study of the histories of drinking persons extending back to their ancestors and grouping such histories, brings out an array of facts still more startling. Thus in the records of a hundred persons there will be found a large percentage who have had inebriate insane and neurotic ancestors, and who are markedly degenerates from infancy.

The use of spirits is simply a symptom of this condition. In a certain percentage patients have suffered from injury, disease, shock and some pronounced physical changes. Dating from this, alcohol has been used in constantly increasing doses. In others a history of starvation and nutrient excesses in early or later life have caused the use of spirits.

A certain number of persons from overwork, exhaustion, mental strain and general neglect of hygienic living become inebriates. Thus the list of causes which have preceded the use of spirits appear with such distinctness and uniformity, as to suggest disease beyond question. Then if the histories are followed up, a continuous movement downward to death is apparent.

If the inebriate and average drinking man of the street is examined certain physical conditions appear so commonly as to still further confirm the disease theory. These conditions are marked by congestions, palsies, sclerosis, local inflammations, disturbed nutritional balance, sensory perversions and general degenerations. Thus, every inquiry into the causes and present conditions of the alcoholic bring out a mass of distinct physical facts which must be recognized in any accurate study of the subject.

If the problem was a moral one these conditions would not appear. A study of typhoid fever, tuberculosis, diphtheria, and similar diseases point to certain exact causes with distinct results which can only be reached and prevented by their full recognition and the application of means and measures along the same lines.

In like manner the alcoholic problem presents the same range



of distinct physical causes which have not been studied and of course are not understood. The physician who is called to treat such persons often fails because he does not understand the physical nature of the malady, or the physical causes which have resulted in the present condition.

As a result he can do little more than a moral teacher and his moral counsel and placeboes literally drive the poor victim into more incurable conditions. The costly experiments of the state to treat inebriates by legal and coercive measures are recognized as distinctive measures. Thus the problem becomes more serious.

The fines and imprisonments of persons intoxicated precipitate them lower and make them more incurable and add to the burdens. Laboratory researches of the exact nature of alcohol and its effect on cell and tissue, also discussions concerning the tonic, stimulant or food value of spirits, are useful, but insignificant compared with the great practically unknown forces concerning the growth and development of the army of alcoholic degenerates.

The laboratory has shown beyond question that alcohol is an anæsthetic and narcotic, and that its use creates a morbid impulse for more. It is also made clear that it has special corroding effects on cell and tissue and beyond this, wide stretches of debatable ground extend.

In the meantime laymen through societies, homes and churches have sought to find some measures of control and prevention, and in this way they have brought out the fact that in some way the alcoholic problem is a question of causes, which when known, can be stamped out the same as other diseases.

The success of irregulars who, by extravagant claims of having discovered specifics for the cure of this evil, has attracted great attention. The fact that thousands of persons have sought help through these means, is a reflection on the failure of the medical profession to become teachers and students of this problem. These pretenders with their mystic drugs can do but very little compared with the exact training of scientific medical men, who of all others should be teachers in this field of study.

The alcoholic problem is evidently passing the same stages which have invested every new evolutionary growth of scientific

facts. First a denial and indifference of its presence and injurious effects; second, a stage of partial recognition that it is an evil, with an attempt to explain the phenomena in accord with old theories; then the third stage of acceptance of the fact that it is a great evil and an attempt to study its phenomena and apply the practical means of prevention.

It is in the last two stages that the problem is at present. The whole subject resolves itself into an effort to understand the phenomena from the physical side as it appears in every community of the country, not the mental and moral phenomena characteristic of the victim of this disease, but the facts of degeneration and their causes, and the physical and psychical laws controlling it.

This brings it specifically into the field of medicine where the physician, who is trained to observe physical facts and study their meanings, is the most competent authority. His everyday life is a study of the physiology, pathology and psychology of conditions and noting the various influences which control and shape them.

His constant thought is with the forces and conditions which influence and shape the physical and mental life of his patrons. Therefore the alcoholic problem is essentially a medical one and literally a study of evolution and dissolution forces of humanity. There is no problem more vital or nearer to him than this, and there is no one to whom the laymen can appeal for more help and promise.

The late Anti-Alcoholic Congress at London brought out this fact. Although not more than 100 of the 1,500 delegates were active medical men, yet every fact presented turned to scientific study for confirmation. The great problems of what to do, unless founded on an exact knowledge of the conditions, are more or less impracticable.

Studies of the losses and injuries from alcohol and vague uncertain efforts by moral and legal suasion to control them, all at length come back to the central fact of what the original conditions are. The present attitude of indifference and opposition to the enthusiastic struggles of laymen agitators and even the victims themselves to overcome and escape from the evils which follow is irrational, unscientific and unaccountable. The physician should

be practically the great leader and teacher of the conditions and forces which underlie this alcoholic problem and should be able to point out how they can be neutralized, overcome and literally stamped out.

Every advance in the scientific study of disease and its phenomena brings into increasing prominence the causes and physical laws controlling them. Without this knowledge there will be infinite confusion in the means for relief and prevention.

Quacks and empirics with all sorts of impossible remedies will take advantage of the credulity and ignorance, and tremendous efforts by enthusiastic earnest men and women will accomplish but little, unless directed by an exact knowledge of the causes.

From every point of view the problem is one of immense proportions concerning disease, death and degeneration of the race both individually and collectively, and a newer age demands exact reasons and not theories to explain the conditions. It is no more a question of custom or theory of our forefathers, what they did or said, it is one of the present.

The phenomena calls for exact study and accurate observation of the facts and their meaning. It demands reasons for the alcoholic problem and all the evils which center about it, and the physiological and psychological which govern and control it. A number of small societies have already appeared in this field with the special object of bringing out the facts and utilizing them in practical efforts to overcome the evils from this source. This is pioneer work of the most imperative necessity, but beyond this every physician should study the whole problem as he would an epidemic of disease and become an active teacher instead of a follower as at present.

Public opinion calls upon him for a counsel in these great questions and temperance crusades, church efforts and societies all come back at length to the physician and his judgment. He is the final authority and will become so when the facts are studied from the physical side.

Studies of tuberculosis and epidemic diseases depend on a knowledge of the facts and no progress can be made in prevention of cure until these are known. In like manner the questions



of alcohol and the injuries which follow from the excessive use, and its special effects must precede all real or practical advance or efforts in this field.

When the medical profession shall take up this subject and teach the public the facts above all theory and prejudice, then the great evils which follow from it will disappear. Already there is evidence from a great variety of sources, particularly in the states that alcohol as a beverage will be completely driven out, and the evils which follow from its use will disappear, when the subject is taken up by the physicians from the physical side.

## Selected Articles

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### ACUTE NEPHRITIS IN INFANCY AND CHILDHOOD, WITH ILLUSTRATIVE CASE REPORTS.

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By JOHN W. PARRISH, M.D., of Brooklyn, N. Y.

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My reasons for choosing this subject are the frequency with which the disease occurs, the fact that its immediate or remote consequences may be disastrous and the fact that its symptoms at times are so obscure that it may be easily overlooked.

*Etiology.*—When we remember that the kidneys are the principal organs for the elimination from the blood of waste products and other poisons it is not surprising that so many and various things act as causative factors in the production of acute nephritis. Scarlet fever and diphtheria are perhaps the commonest causes, but there is probably no general infectious ailment that does not now and then lead to this disease. In practically all of these cases it is the toxin of the primary disease that produces the nephritis. There are other toxins produced in the body, in the intestines, for instance, that may cause nephritis; also toxins may be taken into the body, as in ptomain poisoning and cholera infantum, and set up this disease. Other causes are purpura and the blood diseases, pernicious anæmia, leukemia, etc., also some skin diseases and even large burns. Any one of a long list of irritant drugs may be the active agent in producing the disorder. Exposure to cold and wet frequently causes acute nephritis and finally there are cases for which no cause can be assigned.

*Symptomatology.*—Now when any of these causes have acted sufficiently certain symptoms develop with more or less regularity. There may be nausea and vomiting. There may be fever, generally slight if present, but occasionally high. In infants convulsions may occur. In older children there may be chilly sensations and pain in the back.

*Anaemia*, coming on pretty suddenly, is practically a constant

symptom. It may be the first, and for a time the only thing to suggest nephritis. Whether the causative toxins directly injure the blood, or do so only through setting up inflammation of the kidney, as seems probable, the effect is a pronounced anæmia.

*Changes in the urine.*—We expect to find albuminuria. The albumen escapes largely at the malpighian tufts, but to some extent also (according to Strümpell) in the uriniferous tubules. Our ideas as to its significance have gradually undergone many changes so that we now know that it is utterly impossible to simply estimate the amount of albumen and from that deduce the gravity of the disease. Casts usually give little if any more reliable information than does albumen. Albuminuria probable always indicates some nutritional or degenerative change in the renal epithelium, but the changes are so slight as to leave little if any tendency to real inflammation of the kidney in that large group known loosely as functional cases, including the cyclic, or orthostatic, those due to unusual muscular exertion, to taking too much proteid food, to indigestion, to cold baths, to severe emotional disturbance. Osler quotes Goodhart as saying after a study of the later history of over 250 cases of this kind that "albuminuria of the adolescent has no sinister effect upon the health or duration of life." Of course in all the cases of this kind albumen is usually found in small amount only, but it may be present in considerable amount and may be accompanied by a few casts. In a much larger group, of which the ordinary febrile albuminuria is the type, including very many of the albuminurias of the infectious diseases and in which albumen may be present in small or considerable amount, there is believed to be simply cloudy swelling, or some fatty degeneration or destruction of the epithelium and aside from this no inflammation of the kidney, so that they are not, properly speaking, cases of acute nephritis.

Coming now to true acute nephritis, the abnormal elements in the urine may be present in comparatively small amounts, or in great abundance; but in neither case do they tell us where we have to do with the exudative form or the much more serious diffuse or productive form for the obvious reason that the abnormal



elements coming from the malpighian tufts and uriniferous tubules which are involved in both forms, cast no light upon what is happening in the connective tissue stroma.

In addition to this, various observers have shown that at times there may be the most marked changes in the urine, but after death from other causes very little change be found in kidney structure. On the other hand the changes in the urine may be trifling and after death very severe nephritis be discovered.

In most cases of acute nephritis urea is excreted in normal percentage, but the total amount in 24 hours is diminished.

*Edema.*—Edema was one of the cardinal symptoms of the disease as described by Bright. The old theories as to its causation, hydremia and hydremic plethora, have been discarded as inadequate and it is now believed that in certain forms of the disease, as that following scarlet fever, a poison is developed that is irritant to the walls of the capillaries and causes them to permit an increased passage of the blood serum into the tissues.

The retention of sodium chloride that often occurs in nephritis probably has a decided effect by producing an increased osmosis. It has been suggested that certain tissue cells may develop the faculty of causing increased osmosis. The experiments of Heinecke and others in producing acute nephritis in dogs by administration of different poisons are interesting.

Chromium salts produced nephritis that was not accompanied by dropsy, whereas uranium salts produced nephritis that was accompanied by dropsy. Heinecke found that by injecting the chromium nephritis dog with serum from the uranium dog he could make the chromium dog have dropsy. In the human subject those forms in which dropsy occurs are the ones in which the malpighian tufts are prominently involved and in the young they are principally scarlet fever cases, those due to exposure and the idopathic cases.

This theory of injury to the capillary walls by a poison is also used to explain the so-called "acute essential dropsy" which may occur without known kidney disease after scarlet fever, or after exposure to cold, or aside from either of these conditions.

*Uremia.*—This condition is often immediately preceded by a sharp drop in the quantity of urine, but it may come on without any diminution in the amount of urine. We have little positive knowledge as to the cause of uremia. Retention of excrementitious substances through failure of the kidney to functionate seems a natural explanation, but we know there may be complete retention for many days without the development of uremia.

A variety of causes have been suggested; a disordered internal secretion of the kidney, a faulty metabolism of the kidney tissue, the production of nephrolyns through the disintegration of kidney substance, and localized edema of the brain.

The milder symptoms are headaches, restlessness, sleeplessness, muscular twitching and respiratory disturbance.

These may be the only symptoms or there may be convulsions, general or local, alternating with coma or periods of great excitement. There may also be paralysis, disturbance of sensation and involvement of the special senses. Death often occurs from uremia, but it is not of necessity fatal.

*Treatment.*—This may be summed up in a few words—rest in bed, a fluid diet that does not unnecessarily increase the work of the kidney and measures to favor elimination from the skin, bowel and kidney.

For the bowels salts may be given. For increasing the activity of the skin, dry or moist heat. Pilocarpine is quite generally recommended for the latter purpose. It, however, is a very dangerous drug. I have seen death follow in fifteen minutes after the hypodermic administration of one-quarter grain to an adult.

Activity of the kidneys can be stimulated by saline enemas, colonic irrigation, Murphy drip and heat applied to the whole surface of the body. It should always be borne in mind that uremic vomiting and diarrhoea, being conservative in nature, are not to be too suddenly checked.

For convulsions we may use bromide and chloral by rectum or a hypodermic of morphine, and for immediate effect, chloroform.

*Scarlet fever nephritis.*—As is well known the nephritis usually appears any time from about the end of the second to the end

of the fourth week. It is generally accompanied by dropsy, the urinary changes are usually pronounced and it is frequently of the productive type. It may end in recovery, but it is often terminated by uremia and not at all rarely it eventuates in chronic Brights. It seems to be just as common after mild cases of scarlet as after the severe ones; hence the necessity, no matter how well the child appears, of having the urine measured every day and of examining the urine carefully every day or two days.

The first case I wish to speak of presents a number of points interest; the family history, the tendency to become chronic, the marked effect of kidney disease on the vascular system without regard to the age of the patient and the practical absence of dropsy. In June, 1898, a girl of 11 years contracted scarlet fever by sitting in private school at the side of a child who was said to have had German measles or mild scarlatina. At all events she had returned to school in less than a month. My patient developed a very severe case of scarlet fever. Now the mother of this patient had scarlet fever when a young woman, and for some months afterward was in poor health without obvious cause, so it seems fair to assume that she had kidney trouble. She married a few years later. I don't know what her condition was until the birth of her second child, but then she had severe kidney disturbance with uremic blindness for several days. Albumen and casts were present in her urine to greater or less extent for about a year. She then suffered for twenty years from a mild form of contracted kidney and died from another cause.

The daughter developed nephritis eighteen days from the beginning of the scarlet fever. The urine diminished in quantity suddenly and showed 20 per cent by bulk of albumen, together with hyaline and granular casts, a few epithelial and blood casts, renal epithelium and some red and white blood cells. Aside from a little puffiness about the eyes there was no edema then or subsequently. The quantity of urine was quickly raised, but the percentage of albumen remained about the same for the first ten days. Then without any apparent reason the urine diminished again and the albumen jumped up to 40 per cent by bulk. The color was smoky and there were many casts and red blood cells. The urea



remained about 1 per cent. By means of saline enemata activity of the kidneys was re-established in less than 24 hours, but for the ensuing month the urine contained from 15 to 40 per cent albumen, the total quantity of urine ranging from 2 to 6 pints daily. Then the inflammation seemed to subside somewhat and the albumen fell to 10 and 5 per cent. With the improvement in the urine she gained flesh and strength and at the end of another month was sent to the country.

A couple of months in the country was of great benefit but the albumen did not entirely disappear. During the following winter and early spring she was housed, but got plenty of fresh air from wide open windows. Nearly a year from the beginning of her scarlet fever she was allowed to go about out of doors, and lead the semblance of a normal existence. During this year her diet had been most carefully regulated. For the next six months she lead the life of a semi-invalid, getting out regularly in any fairly good weather and really enjoying life after a fashion. From time to time headaches and digestive disturbance would cause a return to a milk diet for a month or so. During all this time a trace of albumen could always be found and at times more than a trace, but never any large amount. Gradually there had developed increased arterial tension with distinct hardening of the arteries. With this there was some cardiac hypertrophy and marked accentuation of the second sound of the heart. Finally after the disease had lasted about seven years the headaches and digestive disturbances became more frequent and severe, she lost flesh and strength, and at the end of another six months died with hemorrhagic symptoms and mild uremia. Before death she had developed as marked a case of hardened arteries as one often sees at any age.

*Diphtheria Nephritis.*—In this form the glomeruli are usually not so extensively affected and much dropsy is uncommon. The disease generally appears at the height of the diphtheria. Like that of scarlet fever it is often of the productive type.

Nephritis due to exposure and wet closely resembles that of scarlet. There is apt to be dropsy and the disease is often of the productive type also.

Syphilis is said to cause a nephritis that has a tendency to become chronic. In inherited syphilis nephritis certainly isn't common. I have examined the urine in many cases and only recall one in which albumen was found, an infant of a few months who suffered also from severe malnutrition, of which it soon died.

Langstein lays much stress on nephritis due to tonsilitis and other infections of the throat and naso-pharynx and urges routine examinations in these cases, despite the slight difficulty in obtaining specimens of the urine from young infants.

In October, 1910, after dining with a patient who had moved out of town, I was asked to look over his daughter of about five years. She had had a slight sore throat for a few days, but had not been confined to bed and the parents had not thought it necessary to call in a physician. The throat was somewhat red but showed no spots or patches of membrane. She had vomited that day for the first time, was decidedly anemic and very slightly puffy about the eyes, a thing the parents had not noticed. I advised examination of the urine. This was done the next day by Dr. Lanehart and albumen found. Two days later the urine became scanty and pinkish in color and her temperature ran up to over 105; she had in the meantime been put to bed on a fluid diet. I saw her the following day at her father's request in consultation with Drs. Lanehart and Keyes. No local lesion other than that of the kidneys could be made out. Dr. Lanehart had a bacteriological examination of the blood made and a pure staphylococcus culture was obtained. Before vaccines could be prepared the temperature had come down to about normal and as the kidneys were acting freely and the albumen much less in quantity the vaccines were not yet used.

She recovered completely in something more than a month and there has been no return of the disease.

I mention this case because it emphasizes the importance of paying strict attention to the apparently mild throat infections of childhood and because the bacteriological findings are suggestive in a therapeutic way.

There seems to be a marked difference of opinion as to how often the gastrointestinal diseases of infancy cause nephritis. In

my opinion they rarely do so. In marantic infants from time to time we meet with edema of face, hands and feet and often at the same time an increase in weight occurs. Usually in these cases I have not found albumen in the urine, but have done so sometimes. A form of nephritis without edema I have seen occasionally in badly nourished infants.

In addition to the chronic digestive disturbances and emaciation there is a decided pallor, usually a subnormal temperature and a characteristic lifeless feeling to the skin. The skin has lost its natural elasticity and feels as if slightly infiltrated, but it does not pit on pressure. Examination of the urine reveals a small amount of albumen. High colonic irrigation at a temperature of 110 degrees I have found useful in clearing up this condition.

A remarkable form is congenital atrophic kidney. Langstein mentions that cases have been seen by Arnold, Westphal, Baginsky and Hellendall. The latter saw a brother and sister, six months and two years of age, die of contracted kidney. The mother of the children also suffered from contracted kidney.

Finally there is a type of nephritis occurring in infancy and young children without any apparent cause. Holt describes these cases carefully. Symptoms were sometimes so obscure that the disease had been overlooked. Usually in infants they began abruptly with fever, sometimes high. Vomiting and diarrhoea was present in about half of the cases. Most of them were somnolent and a few had convulsions. Some had dyspnoea without lung disease. Albumen was sometimes absent at first, but casts were always found if carefully looked for. Six of twenty-four had dropsy and *all were decidedly anemic*. Urine was not usually scanty until late in the disease and not always then. There was suppression of urine in a few cases and some presented a typhoid condition. Two cases seemed possibly due to highly concentrated urine, as very little fluid had been taken for a considerable period.

In March, 1896, I saw a child between nine and ten months of age who had rather suddenly become decidedly anemic. The following day a slight puffiness about the eyes suggested an examination of urine which disclosed considerable alumen with a few



casts. The child had had no infectious disease of any kind nor had there been any illness in the family. Within a few days there developed general anasarca of moderate degree. The urine became somewhat pinkish in color and contained a considerable number of red blood cells in addition to hyaline and granular casts and a moderate amount of albumen. Hot packs and baths quickly started up action in the kidney and thereafter the urine was of pale color and seemingly abundant. The albumen and casts entirely disappeared in the course of six weeks and have never returned. The patient is now a healthy girl of 17 years. Her heart is easily affected by active exercise, but I can make out no hypertrophy. The syphmomanometer shows systolic blood pressure of 106- diastolic 98.

June 2, 1912, I was called to see a child of six months who had been under my care since birth. The baby had been breast fed for the first three months, then had mixed feeding for a month and after that bottle feeding alone. He had had a little indigestion all of his life, but had gained fairly regularly. I found that three days before the child had had a large vomit in the evening, a thing quite unusual with him. The mother gave no food during the night and in the morning called in a friend of mine, in my absence from town, who ordered barley water for twenty-four hours and then food of half the usual strength if there should be no return of the vomiting. On the following day the family went to the country for the summer as the baby seemed much better, but had no more than got to their destination in New Jersey, when the child had a slight convulsion. A local doctor was called in and gave calomel and stopped all food. The following day, June 2, I saw the child and agreed with the doctor that it was a case of intoxication from milk. The child was put on a very restricted diet with the result that there was no more vomiting and the slight diarrhoea cleared up in a few days. On June 11, ten days after the convulsion, the mother telephoned that she didn't think baby was progressing as well as it should, that he was very pale and she thought a little puffy under the eyes. Instructing her to save any urine that he passed I went out to see him, taking nitric acid and test tube. On my arrival

the mother had managed to save a little urine which on examination revealed considerable albumen. On the following day a larger specimen showed albumen 0.2 per cent by weight, urea 0.4 per cent, a few hyaline and finely granular casts, a few red and white blood cells and epithelium. There was slight puffiness about the eyes. The urine could not be measured but did not seem particularly scanty. In the course of three days the urine was passing abundantly and showed 0.1 per cent albumen, but the edema had increased in the face and showed also in the hands. There was no vomiting nor diarrhoea and temperature ranged between 99 and 100 as it had from the beginning of his illness. He was very pale, but seemed bright enough and took a fair amount of weak food. When asleep his breathing was somewhat irregular. He was given a warm bath and small enemas or large rectal irrigations every four hours during the day and for a week passed plenty of light colored urine containing about 0.1 per cent albumen, but in spite of that the edema increased rather than diminished. Then without any apparent reason the urine became rather scanty, pinkish in color from many red blood cells, and showed 0.4 per cent albumen with many casts. Under hot packs and the Murphy drip the urine increased in amount and continued seemingly abundant. In spite of the rather vigorous treatment the edema still increased and involved the entire body. The appetite failed but he did not vomit. He became listless and finally went into a light stupor for 24 hours and died on June 26, just four weeks from the attack of vomiting that probably was due to a commencing nephritis.

In regard to the etiology of the last two cases only one thing seems certain and that is that they were not due to any of the ordinary infectious diseases.—*Long Island Medical Journal*.

## Extracts from Home and Foreign Journals.

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### SURGICAL

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#### NEEDLE IN THE LEFT VENTRICLE OF THE HEART (X-RAY).

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Dr. William P. Northrup of New York reported this case. He said that a puny, pale-faced, undersized, female child was brought to the dispensary of Bellevue Hospital. After the examination she was sent up for demonstration purposes as a case of congenital heart disease. There was a purring thrill and the writer thought that the case was one of those exceptional ones in which there was no cyanosis. The murmur was heard everywhere over the front of the chest, but rather loud over the belly of the left ventricle. An X-ray plate was made which seemed to show a needle in the ventricle, but the operator thought there must be some mistake and took several other pictures, all of which seemed to show the same thing. There was no hope from an operation and no hope that the child would live without one. While the surgeons were debating as to how they could get the needle the child developed bronchitis. She recovered from this and was sent into the country to recuperate. She returned in a short time with a pneumonia and died within twenty-four hours. The needle was found free in the left ventricle, butt-end downward. The point stuck up between the cusps of the mitral valve. The point that was free in the auricle had scratched the endocardium freely, but only in a small area. The needle was slightly corroded, but there was not much antemortem clot about it. The apex of the heart was adherent to the pericardium over an area the size of a quarter of a dollar; there was also a roughening of the pericardial surface about the adhesions. On the under side of the pericar-



dium was a streak of rust showing the course by which the needle had traveled from the abdominal cavity to the verticle. The needle had entered the body by way of the skin, presumably at the time of a fall a year previously.—*Medical Record*.

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#### TALMA OPERATION FOR CIRRHOSIS OF THE LIVER.

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A man, 45 years of age, began to suffer from indigestion seven months previous to operation and soon noticed enlargement of the abdomen. A diagnosis of cirrhosis of the liver was made. During the last four months paracentesis of the abdomen was done fourteen times, eighteen to twenty-three pints being drawn off at a time. The Talma operation was done on August 10, 1912, the case being a most favorable one because of the good condition of heart, kidney and lungs. The omentum was broadly sutured to the peritoneum and one portion was sutured between the peritoneum and fascia. Paracentesis of much smaller quantities than before was found to be necessary in six times during the next two months, since which time (a period of four months) tapping has not been done. At the present time there is no accumulation of ascitic fluid and the patient is at work and in excellent condition.—*Long Island Medical Journal*.

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#### STRANGULATED HERNIA IN EARLY INFANCY.

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Arthur N. Collins reports a case of strangulated herna in an infant 18 days old. He points out that hernia strangulation under one year is more common than later and that the greatest frequency is in the first three months of life. The cardinal symptoms peculiar to infants are violent and uncontrollable screaming, recurrent vomiting (often fecal), drawn facies, tendency to both retention of urine and rapid collapse. In the diagnosis one must be on the lookout for the possibility of acute hydrocele and acutely

inflamed ectopic testicle. Most of the fatalities are due to waiting, and in prompt operations the mortality ought to be ten per cent or less. Taxis is dangerous and usually fails. The Bassini operation is favored by many surgeons.—*Annals of Surgery*.

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#### ALBEE'S OPERATION IN THE TREATMENT OF POTT'S DISEASE.

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J. T. Rugh gives a historical review of the operative treatment of Pott's disease and refers to the results obtained by him in eight cases operated in by Albee's method. The procedure consists in grafting a piece of tibia to the spinous processes in the diseased area in order to secure bony fixation of the vertebral arches and relieve the bodies of the vertebrae from pressure. Plaster casts were kept on the patients for five months after the operation and a Taylor brace was then applied. The results were uniformly successful. The first patient is wearing a light brace and is ready to take up light work. In one case the condition present was found at operation, instead of Pott's disease, to be one of osteitis deformans, with some osteoporosis. The operation was completed, however, and the results proved as satisfactory as in the other cases. The procedure is not curative in itself, but places a brace along the spine as no cast or jacket can possibly do, nature then healing the diseased area. It has not as yet been rendered applicable to cases with a pronounced spinal loss.—*Medical Sentinel*.

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#### SELF MUTILATION.

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An extraordinary case of self mutilation under religious influence is reported from Nimar District in Central Provinces. One Lachhman, an illiterate peasant, cut off his hand with a hatchet in a religious frenzy and appeared before the priest of a Hindu temple offering himself to the God. He complained of no pain, though blood was flowing profusely. He was taken to the hos-

pital and his wound was dressed. He refused to take chloroform as he said he had no pain and underwent three operations. Then he went away refusing further treatment.—*Practical Medicine.*

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#### RECURRING HYDROCELE AFTER RADICAL TREATMENT.

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Dr. D. Tait presents the following conclusions on this subject:

1. Although eversion is only a palliative measure and does not reach the determining factor, it will, when properly performed, prove eminently satisfactory in over 90 per cent of hydroceles. The medium size, thin wall, chronic hydroceles are the most favorable for eversion.

2. Longuet's method of eversion, *without delivery of the sac*, is the simplest, safest, and least liable to recurrence. It frequently succeeds even in very thick wall hydroceles. A few symptomatic hydroceles recur after eversion.

3. Recurrence frequently results from failure to stitch the edges of the everted tunica vaginalis.

4. Andrews' bottle operation is a failure; it is a step backward in the history of the therapeutics of hydrocele, and its adoption accounts for a large proportion of the recurrences noted in this country.

5. Excision is preferable to eversion in the rare cases of chronic pachyvaginitis. The so-called total excision of the tunica vaginalis is not total, and recurrences following its use have been reported.

6. Excision of the unopened hydrocele is the only complete method of removing the entire excreting surface. It has not been resorted to in thick walled hydroceles; in thin wall hydroceles it is an unnecessarily complicated procedure.

7. Of the numerous objections made by conservatives to the radical treatment of hydrocele none resists either a thorough clinical or the experimental test.

8. The protective role of the tunica vaginalis has been overestimated.



9. Under strictly aseptic conditions experimental eversion of the tunica is not followed by atrophy of the testicle; it may produce a mild peritesticular sclerosis.—*International Journ. of Surg.*

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#### PROSTATECTOMY IN THE AGED.

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The urologist is frequently confronted with the statement that "Mr. Blank is too old for surgical treatment of the prostate." It is an old adage that "a man is as old as his arteries," and for surgical purposes we would add, "as is the functional activity of his kidneys." Many patients are much worse surgical risks at sixty-five years of age than many others at eighty-five. Many an unexpected death following prostatectomy is due to post-operative anuria which could have been anticipated and avoided by careful testing of the renal function before ever advising operation.

Moore, in the *Journal of the Indiana State Medical Association*, presents the subject, "Prostatectomy in the Aged," and, by way of introduction, writes as follows:

"Usually an aged patient with prostatic obstruction is advised to use the catheter. This is to be deprecated because 5 per cent die in three to four years and approximately 100 per cent finally die as a result of prolonged catheterization. This certainly is sufficient reason to look for something better, but to it must be added the enormous inconvenience and untold privations and suffering, both physical and mental, that must be the lot of the patients condemned to the use of a catheter with all of its untidy accompaniments during his declining years. When it is considered that the mortality from prostatectomy is only about 5 per cent, we are justified in advising this operation regardless of the age of the patient when there is any chance of a successful result.

"From the very favorable results experienced with a number of cases operated between the ages of fifty and ninety, the writer thinks it advisable to recommend operation in any case where there are no serious contra-indications.

"The medical adviser has no better opportunity in his practice

to aid mankind than in being able to recognize the beginning of prostatic obstruction. It is not uncommon for patients to succumb to the sequelæ of this disease before the primary condition has been recognized.

Before the operation it is most important that the kidney function be known, as the mortality is very high when the kidneys are seriously impaired."

That his opinions may be verified, the doctor reports in this connection two successful cases, ninety years of age.—*The Lancet-Clinic*.

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#### GONORRHEA, NEW TREATMENT FOR ACUTE.

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The author asserts, from observations in a limited number of cases, that acute gonorrhea can be cured in a week or ten days by the use of intraurethral injections of iodine in a blend of oils. In the first two cases the iodine was used in 5 per cent strength, but one of the patients complained of rather severe smarting, and in the subsequent cases the iodine was combined with another oil-soluble antiseptic (not specified), which enabled him to use a weaker strength of iodine with practically the same effect, but less discomfort to the patient. The result of this treatment in six cases was even slightly better than in the first two, in which, according to the author's description, the discharge ceased in a couple of days. He had found that something more besides the iodine, *e. g.*, zinc phenol-sulphonate, was required to bring about a definite cure, and availed himself of this knowledge in treating the six cases referred to. The iodine injections were given once daily and the zinc phenol-sulphate injections evidently twice a day. The strength of the zinc solution should not be greater than will just produce a fairly perceptible sting.

In each of the eight cases treated the diagnosis had been verified microscopically. The author believes the treatment also applicable to streptococcus and staphylococcus infections of the urethra. The best results can be obtained if the physician him-

self makes the iodine injections, leaving the zinc phenolsulphonate or other injections to be made by the patient.

In chronic cases one can not expect the same results, though after skillful massage of the ducts, prostate, vesicles, etc., about the end of the third week, followed by micturition, an injection of iodine may reasonably be expected to do some good. With an effective treatment of the acute stage such as the author advocates, however, there should follow a diminution of the chronic cases.—O. L. Mulet (*Medical Record*, April 19, 1913).

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### SURGERY OF THE ARTERIES.

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The chief subject for discussion Saturday, August 9, was "The Surgery of the Arterial System." Prof. Rudolph Matas, New Orleans, made a rapid survey of the whole range of the new movement in surgery, described the suture of both arteries and veins, arteriovenous anastomosis of various kinds, transplantation of arteries and veins and brought forward laboratory as well as clinical evidence to show the feasibility of these various procedures. In regard to vascular implantation of arteries and veins autogenetic methods were more suitable than heterogenetic though these were not wanting in success. The segment of an artery or vein could be grafted to another, or branches of a parent trunk could be reimplanted on the same vessel at different levels. Arteries and veins could be patched with portions of blood-vessels or other material. The main portion of his paper was devoted to the method of treating aneurysm by suture associated with his name—intrasaccular suture or endo-aneurysmorrhaphy. The latest statistics included an analysis of 215 reported cases. The results fully justified the confidence placed in this operation.

Dr. C. B. Ballance recognized that surgery of blood vessels had advanced greatly. He specially spoke of the obliterative and reconstructive treatment of aneurysms recommended by Matas and thought that since Hunter no advance had been made till Matas



began his work. In his own view, except in the treatment of aneurysm of the aorta and some other great vessels, and in special circumstances, Matas' method was not likely to find general acceptance. He regarded popliteal aneurysm as the type best suited for Matas' operation. But nevertheless the practical advantages and the extreme simplicity of the Hunterian operation seemed to him still to prevail. He thought the Hunterian operation for popliteal aneurysm was the greatest advance in surgery ever made by the single act of one man. Matas' operation should be reserved for those cases in which the older operation is inapplicable.

Dr. A. L. Soresi of New York showed his apparatus for suture of blood vessels. He had made a small clamp which held the ends of the vessels to be joined in such a way that minute hooks held back a cuff so as to expose the intima all around. Then intima was sutured to intima by the insertion of very small gold wire clamps after the fashion of Michael's clamps. A single row of these was enough to effect a complete and safe junction.

Dr. Davis (Brussels) said that Professor Oppel of St. Petersburg had said that ligation of both artery and corresponding vein gave a better final circulation than ligation of the artery alone. The principle was sound but on one condition only, that the vein should be tied *after* the occlusion of the artery. He had proved the efficacy of the method and the truth of the principle by some experiments.

Dr. Ernest Jeger (Berlin) gave a short account of some of his studies. Eck's fistula or anastomosis between portal vein and inferior vena cava he had performed repeatedly on dogs. Magnesium tubes were a useful support to blood vessels in suturing, as the magnesium afterward became absorbed. He demonstrated specimens of transplanted kidneys from their normal situation to the neck, the carotid artery being joined to the renal artery and the jugular vein to the renal vein. He had even inserted the end of a piece of vein into the left ventricle of the heart and the other into the aorta, so that the aortic valve was put out of use. Most of these experiments were performed on animals, but he was

hopeful that in time they will become applicable to the human subject.

The experience of Dr. V. Soubbotitch with traumatic aneurysms in the Balkan War was interesting. The majority of the cases had to be treated by the older methods, but in some cases he and his colleagues were able to suture arteries and veins with moderately good results.

Dr. Chiasserini (Rome) had performed thirteen experiments in transplanting flaps of fascia lata in repairing the aorta or other large vessels with such success that he recommended that tissue as very suitable for the purpose.—*The Journal of the American Medical Association*.

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## MEDICAL

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### HEART BLOCK.

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Held reviews the experimental work done in heart block, beginning with the experimental work done in heart block, beginning with the experiments of Romanes on the umbrella of the jelly fish and of Tigerstedt, Wooldrige and McWilliams on the mammalian heart in 1884, 1883 and 1888, respectively. He points out that heart block is not synonymous with Adams-Stokes syndrome; that the latter is the clinical manifestation of the former; but that the former may exist without the latter. The following pathological conditions have been described at autopsy: gumma of the bundle of His, stretching and obliteration of the auriculo-ventricular bundle, lymphatic deposits in the bundle, round celled sarcoma of the interventricular septum, infarction of the bundle of His, etc. It is safe to conclude that a slow pulse (the author probably means a constant pulse rate in the neighborhood of 30 or 40 per minute) is due to dissociation between the auricle and ventricle and that the syncopal attacks in Adams-Stokes syndrome

are due to the cessation of the ventricular beat; not to the auricular pulsation. In addition to cases of Adams-Stokes syndrome dependent upon disease of the bundle of His we have a type in which the bundle of His is intact but in which the myocardium is extensively diseased; the mural type; and the neurogenic type. The latter type of case is influenced by atropine. Digitalis causes heart-block and whenever polygraph shows an increased a-c interval that drug should not be used. The prognosis is bad. If the condition is due to a gumma, antiluetic treatment may give brilliant results. Sodium or potassium iodide should be tried in any case. Hydrotherapy is of value; the neutral bath being most efficacious. Carbonated brine baths should be used with great caution and never when there is hypertension. Atropine is useful in the neurogenic type. Caffein and sodium benzoate may be tried. Nitroglycerin should never be used.—*Buffalo Medical Journal*.

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#### EPINEPHRIN, ANTIARTHRALGIC AND ANTINEURALGIC ACTION OF.

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Favorable effects are reported by the author from the administration of epinephrin in the majority of a series of 15 cases of arthritis, of various forms. In 14 of these patients the condition was acute. Four cases of ordinary polyarthritis ran their course without any complication. In 2, however, slight conjunctival icterus appeared from the outset, the urinary urobilin increased considerably, and a fibrinous pericarditis followed. In 2 others a pleural effusion developed. In 2 cases which failed to respond to the treatment sepsis appeared to have been the cause. In a case of arthritis deformans the drug was also without effect.

Nerve inflammations seemed to be favorably influenced by epinephrin. In 2 patients suffering from sciatica, aged respectively 53 and 63 years, marked improvement occurred after a few injections, especially in one case.

The joint cases treated were of widely varying ages. No un-



toward effect was observed. The epinephrin was injected subcutaneously every day in the dose of 1 c. c. (16 minims) of the 1:1000 solution, for a period of one to two weeks. The injections were generally made at the seat of pain. F. Gaisböck (*Medizinische Klinik*, March 16, 1913).

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#### PEPPER IN HOT COUNTRIES.

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For some reason or other which we do not as yet clearly understand, says Dr. Hutchinson, it appears desirable, or at least grateful, in the tropics to add to most dishes a surprising amount of peppers, curries, spices, and hot stuff of all sorts and descriptions. This is probably due partly to the fact that they are good germicides and intestinal antiseptics, not interfering with the action of the digestive ferments. While unable to burn up the bacteria—though from the taste one is ready to believe them capable of anything, yet they powerfully discourage the growth of bacteria and reduce their billions to millions or even thousands. Nevertheless, nearly all native Mexicans, says Dr. Kellogg, suffer from hardening of the liver—due to the “hot stuff” they eat.—*Family Doctor*.

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#### PATHOGENESIS AND TREATMENT OF ACUTE ARTICULAR RHEUMATISM.

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Weinstraud presents arguments to sustain the assumption that the parenteral passage into the blood of bacterial proteins or of substances originating under the influence of the bacteria, create conditions of anaphylaxis. The parenteral penetration into the system of the bacterial proteins thus sensitizes the organism, and a special affinity of these proteins for the joints or the heart may lead to a special local sensitization. The specific reaction soon dies out, but new generations of bacteria repeat the process. Other

bacteria may then get in their work as a complicating secondary infection. This conception of the origin of acute articular rheumatism throws light on the treatment, Weintraud continues. All the drugs which are known to be effectual in acute articular rheumatism are mild narcotics for the sensory functioning of the brain. It is certainly remarkable that the drugs with most effectual action are those which attenuate the sensory impulses from the joints. We know that the outbreak of the symptoms accompanying the anaphylactic reaction in animals can be entirely prevented by general anesthetics (ether, ethyl chlorid, etc.). There is also much research on record which shows that the phenomena of inflammation, otherwise inevitable, do not occur if the sensory impulses from the region are attenuated or entirely suppressed.—*The Journal of the American Medical Association.*

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#### MEASLES, INUNCTION TREATMENT OF.

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The following measures were employed by the author in a series of 160 cases of measles: A hot bath was first given, then a thorough application of eucalyptus oil made to the whole body, with the exception of the hands and the part of the face about the nose, mouth and eyes. The mouth was irrigated twice daily with a weak alum lotion, and glycerin and borax applied to the interior of the mouth and to the gums. The throat (tonsils and fauces) was treated with phenol (1 to 10) morning and evening, using a firm mop of cotton-wool on the ends of a pair of forceps. Every day for the following four days the child was blanket-bathed morning and evening, and again rubbed over with eucalyptus oil, the throat and mouth having the same treatment as on admission.

In the cases thus treated, the total number of deaths was 8, giving a case-mortality of 5 per cent. Among 100 cases of measles previously treated without the inunction method the mortality had been 11 per cent. The children were from the poorest class of the community, prone to all kinds of infection, and having poor resisting powers. Even when serious complications were

present, the treatment has a beneficial influence in the course of the disease.

The favorable effect of the treatment is mainly brought about, in the author's opinion, by the inhalation of the vapor of eucalyptus, and the local application to the mouth and fauces of antiseptics. The virus most probably attacks the air passages first, where also secondary infection is likely to arise. It is difficult to say how far the absorption of the eucalyptus via the skin plays any part in the curative value of the treatment.

Careful and constant nursing and maintenance of an even air temperature of 65 degrees F, are very important accessory measures.—*Medical Sentinel*.

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## OBSTETRICAL

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### PERINEUM, PROTECTION OF.

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As soon as the head begins stretching the perineum, the author begins to bathe the latter with sterile water and compound solution of cresol, using sterile pledgets of cotton and rubber gloves. When the head begins to appear, he pushes the anterior vaginal floor backward and upward and at the same time pushes the occiput toward the bregma, attempting as far as possible to flex the head more and more. If the perineum seems very tight when the head no longer recedes with pains and the perineum is on the stretch, obstetric anæsthesia is given. The nurse then extends the legs and at the same time everts the feet, bringing the thighs as close together as possible while giving the physician a place to work. This brings the buttocks on each side inward and makes available more tissue for the perineum. The vulva is then pushed back from the child's head with sterile moistened pledgets, beginning at the sides and always working between pains. While doing this the author is attempting to flex the head as much as possible and to deliver the apex of the vertex between pains. As



soon as this is accomplished the anæsthetic is pushed or the woman told to yell, to have her attention diverted. Directing the nurse to maintain the position in which the legs are together, with the feet, the legs and thighs rotated outward as much as possible, the author tries to effect delivery between pains. The shoulders of the child are given the same sort of attention as the head. If the perineum seems so tight that a tear is apparently inevitable, then it is best to nick the vagina at the sides.—Green Baughman (*Journal of the American Medical Association*, February 1, 1913).

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#### NERVOUS AFFECTIONS IN PREGNANCY.

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A. Sanger discusses a few nervous affections which occur during pregnancy and which stand in direct relationship with the same. First, he tells of cases of polyneuritis. In one case all the extremities, as well as the muscles of deglutition and of the rectum, were paralyzed; in a second case there was also a general distribution of the paralysis. Both cases ended in complete recovery. Mobius has recorded a case of neuritis affecting the ulnar and median nerves following a severe parturition. Other cases are also mentioned. Saenger also records a case of retrobulbar optic neuritis in the puerperium. There was total blindness of both eyes. Partial recovery followed in a few months. In all these cases the author regards that the cause existed during pregnancy. Autointoxications occur during pregnancy, as is shown both by albuminuria and by the vomiting of pregnancy. The causes of hyperemesis gravidarum are supposed to be either hysteria or the marked passive movements in the uterus, affecting the intestines, or the disproportion between the uterus and the growing contents of the same or the direct reflex action on the part of the increasing uterine wall. Saenger recognizes that hysteria may play a part in some cases, but it certainly does not account for all the cases. His own opinion is that the most common origin of hyperemesis is of a toxic nature, and supports this view by calling attention to the frequency with which it is asso-

ciated with polyneuritis. Next, he turns his attention to epilepsy in pregnancy. He shows that at times the attacks can be controlled by the exhibition of cerebrin and bromides. In some cases, a previously existing epilepsy may be favorably influenced by pregnancy, while in others the reverse may be the case. He cites cases in which a latent epilepsy became active again during pregnancy and in which the patients lost their lives in status epilepticus. Some difficulty may be experienced when epilepsy is associated with eclampsia. As a rule, the differential diagnosis is not difficult. Lastly, he deals with puerperal insanity. He cites cases in support of the view that when a previous attack has been experienced and recovery has followed, the question of the induction of abortion should be considered, should a fresh pregnancy occur. His cases show that this procedure may lead to very satisfactory results. He is of opinion that many a woman can be saved from permanent insanity if an abortion is induced in good time.—Van Wart in *New Orleans Medical and Surgical Journal*.

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#### ANAESTHETIC FOR DELIVERY.

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Fuchs relates a number of experiences which sustain his general conclusion that up to the present no means is known of rendering delivery painless which is not fraught with some danger. He says of the scopolamin "twilight sleep" that it is so dangerous for the respiration center of the fetus that he has abandoned it entirely. In his service one otherwise normal child succumbed evidently to the "scopolamin trauma" alone, and three others were born with lagophthalmos, cyanosis, sluggish pupils and very slow respiration, but these three children finally threw off the effect of the drug after a week of somnolency, taking scarcely any nourishment. He cites a case to show the medicolegal complications possible when a woman is delivered during the "twilight sleep": When the woman returned to full consciousness and found twins beside her, she refused to accept the two infants as her offspring. The accusation of changing the children while the mother is una-

ware of what is going on is also within the possibilities.—*The Journal of the American Medical Association.*

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#### PERFORATION OF THE UTERUS BY A FOREIGN BODY.

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Zimble reports a case of what was once regarded as rare in literature, howsoever often it may be in fact. Patient married and had borne three children. She was not known to be pregnant, although she had gone five weeks without menstruation, which had evidently led her to attempt an interruption of the supposed pregnancy. The author was summoned to treat a miscarriage, but instead found that the long goose quill introduced into the uterus had perforated the latter's fundus, its end in contact with the peritoneum. The author removed the quill and curetted the uterine cavity, bringing forth the remains of an ovum. The woman escaped infection. The singularity of the case lay in the ability of the patient to pass the quill throughout the uterus, and that it lay there for a day or more without causing a reaction. Many forensic authorities have denied such a possibility outright, so that suspicion with them in such a case falls on a second person.—*Medical Record.*

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#### TORSION OF MYOMATOUS UTERUS.

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In Poth's case a virgin of 56 had known for twenty-one years that she had a pelvic tumor, but as it had caused no disturbance she did not heed her doctor's advice to have it out. Five years after the menopause her abdomen began to enlarge and suddenly symptoms as of acute peritonitis developed. The pains increased after two days and the objective findings suggested torsion of an ovarian tumor but the uterus was found to be the organ involved. There was one quite large and two small myomas; the whole uterus weighed 3,750 gm. and it had twisted completely around. Poth knows of only eighty-two cases of the kind on record; in Kynoch's



case the myomatous uterus weighed over 16 pounds and had twisted two and a half times around.—*The Journal of the American Medical Association*.

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#### PITUITARY EXTRACT IN OBSTETRICS.

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From an experience in forty-eight labor cases, of which twenty-five are reported somewhat in detail, Gonsew makes the following observations: Pains begin in from two to ten minutes, accompanied by abundant micturition. Pituitary extract stimulates pains better during the second half of pregnancy, especially at its end; it gives good and reliable results in the first stage and acts still better in the stage of expulsion. Anæsthesia, and especially morphin, inhibits the action of the extract. It is more reliable than hot douches and metreuresis for effecting artificial premature labor. It frequently is able to supplant forceps and Kristellar's expression. Pulmonary tuberculosis, diseases of the heart and kidneys, eclampsia, marginal placenta prævia, and premature detachment of the placenta he does not consider contraindications. He relates that edemata completely vanish in from eight to eighteen hours, while the albumin markedly decreases or disappears from the urine after its use. It hastens the expulsion of the placenta. He observed no injurious effects on mothers or children. In cases of atonic postpartum hemorrhage the extract gave reliable and permanent results, stimulating strong contractions of the uterus. He asserts that irregular pelves, not below the medium degree of contraction, are not contraindications to the administration of pituitary extract. Miller in *International Abstract of Surgery*.

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#### SEPTATE UTERUS CAUSING FATAL PUERPERAL SEPTICEMIA.

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Dr. Sidney D. Jacobson made this report. This malformation of the uterus, which caused the woman her life, was a variety of

arrested development, caused by a failure of proper coalescence of the Muellerian ducts with consequent absence of absorption of the septum between the two halves of the fetal uterus. The patient was thirty-four years old and a primipara. During the first week in June, 1907, she went into labor at term and was delivered in her home by the aid of median forceps. Within a few hours her temperature rose to 104 F. and she began to show all the typical signs of puerperal sepsis. Dr. Jacobson was called to see her on the third day after delivery and found her with the symptoms of severe pelvic peritonitis. The interior of the uterus contained a distinct partition running from before backwards and extending almost to the cervix. This partition divided the uterine cavity into two equally sized chambers, one of which was quite empty and the other filled almost entirely with a soft and friable mass of bad odor. This was evidently the cause of her sepsis and the pultaceous mass in one chamber of her bilocular uterus, a false decidua which had not been expelled and had in some way become infected. He advised immediate hysterectomy, but the husband declined and finally agreed to a "cleaning" of the uterus. The uterus was carefully curetted and a considerable quantity of mushy and malodorous material removed. The organ was irrigated with a 50 per cent solution of alcohol. She improved somewhat but still presented the picture of profound infection. On June 11, 1907, she was removed to the hospital and a hysterectomy performed as a last resort, hoping to give her a fighting chance for recovery. She died on the following day of pulmonary embolus. The specimen of the uterus was shown; it was a large subinvolted organ cut longitudinally and showed the septum beautifully. The specimen was presented to show the fact that a malformed uterus might become a fatal complication in labor.—*Medical Record*.

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#### PUERPERAL SEPSIS CURED BY OPERATION.

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Brix reports the following case: After evacuating the uterus for an abortion, the temperature rose. The patient continued to feel well for some days but was seen to be weakening. A radical

course was then executed. Laparotomy was made on the very fleshy patient, who was then put in the Trendelburg position. After due preparation, the peritoneum was divided over the right hypogastric artery and vein. Both were simply ligated. The process was repeated on the other side. The entire uterus was now extirpated down to the vagina, and the end of the latter clamped. The peritoneal incisions were now nearly closed by continuous suture, so that a funnel was formed by traction on the sutures which were allowed to lie in the vagina, a device being used to prevent slipping upward. Convalescence was smooth. There is no mention of thrombophlebitis in connection with this case.—*Medical Record*.



## Editorial

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**PUBLISHER'S NOTICE**—The Journal is published in monthly numbers of 48 pages at \$1.00 a year, to be always paid in advance.

All bills for advertisements to be paid quarterly, after the first insertion of the quarter.

Business communications, remittances by mail, either by money order, draft, or registered letter, should be addressed to the Business manager, C. S. Briggs, M. D. corner Summer and Union Streets, Nashville, Tenn.

All communications for the Journal, books for review, exchanges, etc., should be addressed to the Editor.

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### THE INTERNATIONAL MEDICAL CONGRESS AT LONDON.

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Two delightful never-to-be-forgotten periods in the writers life—the two International Medical Congresses at London in 1881 and 1913. Although the latter in point of attendance far exceeded the former, and that was to be expected—7,000 against 4,000—yet the social and scientific work did not come as near doubling. In 1881 we had a galaxy of great men. Lister, Pasteur, Virchow and Koch were among them, but not all. Sir James Paget was the genial and kindly and wise president and Sir Wm. McCormac the efficient secretary in 1881. Sir William got his knighthood from Queen Victoria for his efficient work as secretary of this Congress. As great as was the scientific worth of these Congresses they were not excelled by the wonderful outpouring of hospitality. Among those who entertained at both Congresses were The Medical Profession of London, The Royal College of Physicians, The Royal College of Surgeons, The South Kensington Museum. Albert Edward, then the popular Prince of Wales, opened the meeting in very good style. This for the queen. This meeting was opened by Prince Arthur of Connaught, who represented the king. In 1881 the elegant Crown Prince of Prussia, "Unzer Fritz," was present with the Prince of Wales at one of the receptions. At the 1913 meeting the various stations were entertained by the local profession. Numerous hospitals and in-

stitutions and private individuals entertained, among them Lord Strathcona. The Baroness Burdette Coutts, who entertained us so beautifully in 1881, has passed to her reward. Probably the most noted scientific man present in 1913 was Paul Ehrber.—*E. S. McK.*

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#### FORENSIC MEDICINE AT THE MEDICAL CONGRESS.

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The section on forensic medicine at the International Medical Congress in London in August was full of interest and did good work. The president, Prof. Harvey Littlejohn, and the secretary, Dr. W. A. Brend, both of London, had their work well in hand and performed their duties with grace and wisdom. The section held eight sessions extending over five days and the program consisted of 49 papers. Among the interesting subjects discussed were: "The Hungarian Medico-Legal Senate;" "Conditions Simulating Drunkenness;" Medico-Legal Aspects of Infant Mortality;" "The Diascopy of Blood Traces;" "Veronal Poisoning;" "Diachylon as an Absorfacient;" "The Pathological Aspects of Deaths Under Anæsthetics;" "Syphilis, Its Dangers; to the Community," and Questions of State Control;" "Alcohol and Degeneracy;" "Malingering;" "Should the State Institute Necropsy in Every Case of Death?" "The Psychology of Crime." The President gave the members of the section a dinner. The section was taken to Scotland Yard and shown the interesting workings of that great institution. Not the least interesting of these was the system of finger prints. Two hundred cases of finger prints were on file there and the system of finding them was wonderful. Many interesting relics were shown among them those of Mrs. Dr. Crippen. The London Medico-Legal Society took the section in automobiles about thirty miles to Broadmoor, Englands Criminal Lunatic Asylum.—*E. S. McK.*

GOVERNMENT WARNS PUBLIC AGAINST FRAUDULANT  
RADIOACTIVE WATERS.

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U. S. Department of Agriculture's Chemists Fear a Great Mineral Water Fraud will be Perpetrated.

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Washington, D. C., September 15, 1913.—The U. S. Department of Agriculture, through the Bureau of Chemistry, today issued the following warning to the public in regard to the so-called radioactive mineral waters offered for sale in bottles:

"There are indications of the beginning of an attempt to perpetrate a great fraud on the American people through advertising certain mineral waters as possessing radioactivity. These waters, in some cases, are taken from springs the waters of which as they come from the ground do possess certain radioactive properties. Examination of many of these waters by the Department's specialists indicate that whatever radioactivity they possess at the spring is due almost entirely to radium emanation rather than to the presence in the water any substance possessing radioactivity. These emanations in the form of gas quickly disappear from the water and as a result, after the water has been bottled a short time, it will possess practically no radioactivity. The belief long held by many people that some mineral waters used at the springs are more effective than when bottled has been explained by some authorities on the ground that the beneficial effect of these waters is due to radioactivity. As the radioactivity disappears soon after the water is taken from the spring, and effect due to the radioactivity must be lost in a short time. If the radioactivity of a water in a spring is 100, four days after bottling it will be only 50, and twelve days after bottling, 10. In a month it will be practically nothing compared with the original radioactivity of the water at the spring. The public, therefore, is warned to regard with suspicion any water advertised as possessing radioactivity. As far as the Government's specialists have been able to ascertain, no



bottled water, no matter how radioactive it may have been at the spring, retains this radioactivity for any length of time.

"The Department is now investigating a number of the so-called radioactive waters with the object of securing evidence that can be made a basis of prosecution for misbranding. In the past before the Food and Drugs Act was enacted, a number of mineral waters made claim to curative properties which they did not possess and succeeded in creating a misplaced confidence on the part of the consumers. This was particularly true of a number of imported waters which were sold extensively in the United States with a statement on the bottle that they were wonderful or magical cures for all sorts of incurable or chronic ailments. The Treasury Department, acting in coöperation with the Department of Agriculture, now refuses admission to the country of foreign waters labeled so as to mislead consumers as to their real or curative properties. The Department fears that unless the public is warned that the fraudulent trade in so-called radioactive waters will develop, just as the fraudulent trade in other mineral waters was developed to the point where people with strong imaginations will supply their bottles with all sorts of testimonials ascertaining that these supposed radioactive waters have effected wonderful cures."

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#### MEDICAL INTERNE.

Government Hospital for the Insane, July 2, 1913.

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The United States Civil Service Commission announces an open competitive examination for medical interne, for both men and women, on July 2, 1913, at the places mentioned in the list printed hereon. From the register of eligibles resulting from this examination certification will be made to fill a vacancy in this position in the Government Hospital for the Insane, Washington, D. C., at \$900 per annum, with maintenance, and vacancies as they may occur in positions requiring similar qualifications, unless it is

found to be in the interest of the service to fill any vacancy by reinstatement, transfer, or promotion.

The positions are tenable for one year, and pay \$75 a month and maintenance. At the end of six months, however, during which time a postgraduate course in mental and neurological diagnostic methods, etc., is given, an examination is held, and promotions to the next grade, junior assistant physician, are made. Beyond this there is regular advancement for men whose services are satisfactory. The Government Hospital for the Insane has over 2,900 patients and about 750 employes to care for. In addition to the general medical practice offered, the scientific opportunities are excellent and the clinical opportunities in neurology and psychiatry are unsurpassed.

As considerable difficulty has been experienced in filling vacancies in the position of medical interne in the Hospital Service during the past several years owing to the limited number of eligible available, qualified persons are urged to enter this examination.

Competitors will be examined in the following subjects, which will have the relative weights indicated:

<i>Subjects</i>	<i>Weights</i>
1. Letter writing (the subject matter on a topic relative to the practice of medicine)-----	5
2. Anatomy and physiology (general questions on anatomy and physiology, and histologic or minute anatomy)--	10
3. Chemistry, materia medica, and therapeutics (elementary questions in inorganic and organic chemistry, the physiologic action and therapeutic uses and doses of drugs) -----	15
4. Surgery and surgical pathology (general surgery, surgical diagnosis, the pathology of surgical diseases)----	20
5. General pathology and practice (the symptomatology, etiology diagnosis, pathology, and treatment of diseases--	25
6. Bacteriology and hygiene (bacteriologic methods, especially those relating to diagnosis; the application of hygienic methods to prophylaxis and treatment)-----	10

7 Obstetrics and gynecology (the general practice of obstetrics, diseases of women, their pathology, diagnosis, symptoms, and treatment, medical and surgical)-----	15
Total-----	100

Graduation from a reputable medical college is a prerequisite for consideration for this position.

Applicants must not have been graduated previous to the year 1908 unless they have been continuously engaged in hospital, laboratory, or research work along the lines of neurology or psychiatry since graduation, which fact must be specifically shown in the application.

Both men and women will be admitted to this examination. Applicants must be unmarried.

Age, 20 years or over on the date of the examination.

This examination is open to all persons who are citizens of or owe allegiance to the United States and who meet the requirements.

Persons who meet the requirements and desire this examination should at once apply to the United States Civil Service Commission, Washington, D. C., or to the secretary of the board of examiners at any place mentioned in the list printed hereon, for application and examination Form 1312. No application will be accepted unless properly executed and filed with the Commission at Washington in time to arrange for the examination at the place selected by the applicant. In applying for this examination the exact title as given at the head of this announcement should be used.

Issued May 31, 1913.

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FINED \$100 FOR SHIPPING MACARONI COLOR  
CONTAINING ARSENIC.

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Washington, D. C., September 20, 1910.—David and Solomon Katzenstein, doing business under the firm name of Star Extract



Works, New York City, have been fined \$50 each for shipping macaroni color adulterated with arsenic, according to a notice of judgment issued recently by the U. S. Department of Agriculture.

The adulterated macaroni color was shipped from New York into Missouri. It bore this label:

"Coal Tar; Yellow Color; Macaroni Shade; Star Extract Works, importers and manufacturers of essential oils, flavoring extracts and supplies, 205 Fulton St. New York."

Adulteration of the product was alleged because it was found to contain arsenic, which arsenic was not a preservative applied externally in preparation of the product for shipment but was added to the product as a poisonous and deleterious ingredient which might render the macaroni color injurious to health.

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#### SCHOOL FOR HEALTH OFFICERS.

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Conducted by Harvard University and the Massachusetts  
Institute of Technology.

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Beginning this fall Harvard University and the Massachusetts Institute of Technology are to maintain in coöperation a School for Public Health Officers. The facilities of both institutions are to be available to students in the school and the Certificate of Public Health (C. P. P. H.) is to be signed by both President Lowell and President Maclaurin.

The object of this school is to prepare young men for public health work, especially, to fit them to occupy administrative and executive positions such as health officers or members of boards of health, as well as secretaries, agents and inspectors of health organizations.

It is recognized that the requirements for public health service are broad and complicated, and that the country needs leaders in every community, fitted to guide and instruct the people on all questions relating to the public health. To this end, the instruc-

tion of the new school will be on the broadest lines. It will be given by lectures, laboratory work, and other forms of instruction offered by both institutions, and also by special instructors from national, state and local health agencies.

The requirements for admission are such that graduates of colleges, or technical and scientific schools, who have received adequate instruction in physics, chemistry, biology and French or German, may be admitted to the school. The medical degree is not in any way a prerequisite for admission, although the administrative board strongly urges men who attend to specialize in public work to take the degree of M. D. before they become members of the School for Health Officers.

The administrative board which will conduct the new school is composed of Professor William T. Sedgwick, of the Massachusetts Institute of Technology; Professor Milton J. Rosenau, of Harvard; and Professor George C. Whipple, of Harvard. Professor Rosenau of Harvard has the title of Director, and the work of the school will be under his immediate supervision.

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The fourteenth course of Lane Medical Lectures will be delivered by Sir Edward A. Schäfer, Professor of Physiology in the University of Edinburgh, on the evenings of September 3, 4, 5, 8 and 9, 1913, at 8 o'clock, in Lane Hall, Medical Department, Leland Stanford, Jr. University, Sacramento Street, near Webster, San Francisco, Cal.

The medical profession and students are cordially invited to attend.

During the course of Lane Medical Lectures the teaching staff of the Stanford University Medical Department will give the following clinical lectures and demonstrations for practitioners and students:

*Mornings.*—September 3, Medicine; September 4, Pathology; September 5, Orthopedic Surgery; September 6, Medicine and Surgery at San Francisco Hospital; September 8, Genito Urinary Surgery; September 9, Neurology.

*--Afternoons.*—September 3, Dermatology; September 4, Eye,

Ear, Nose and Throat ; September 5, Pharmacology ; September 8, Gynecology and Obstetrics ; September 9, Neurology.

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Messrs. Rebman, Publishers, take pleasure in informing the profession that the International Medical Congress, held during the first week in August, 1913, has awarded to them the gold medal for the best medical publications.

New York City, August 28, 1913; 141-145 W. 36th Street, Herald Square Building.

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STATEMENT OF THE OWNERSHIP, MANAGEMENT,  
CIRCULATION, ETC.,

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of the *Nashville Journal of Medicine and Surgery*, published monthly, at Nashville, Tenn., required by the Act of Aug. 24, 1912

Note.—This statement is to be made in duplicate, both copies to be delivered by the publisher to the postmaster, who will send one copy to the Third Assistant Postmaster General (Division of Classification), Washington, D. C., and retain the other in the files of the postoffice.

Editor, Charles S. Briggs, M.D., Nashville, Tenn.

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CHARLES S. BRIGGS, M.D.

Sworn to and subscribed before me this 24th day of Sept., 1913.

(Seal.)

T. W. BURNS, N.P.

My commission expires June, 1916.



## Publisher's Department

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A successful medical practitioner of many years standing makes the following statement:

"There are a large majority of combinations which extemporaneous pharmacy can not prepare properly, and I know that through the dishonesty, ignorance, or indifference of many retail druggists we are not able to get on prescriptions the very best drugs; hence it is to the manufacturing pharmacists, whose best interest lies in the purity and uniformity of his product, that we look for our most reliable remedies.

"I endorse worthy proprietaries, but I most heartily condemn the great tendency of manufacturing pharmacists to foist upon the profession and public cheap imitations of standard preparations."

---

"Paraldehyd" possesses many of the good without the evil qualities of chloral. Used in Insomnia resulting from various causes. The objectionable taste of the chemical is, to a great extent, disguised in Robinson's Elixir Paraldehyd (see advertisement in this issue), which is an elegant preparation.

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"There is a decided tendency to limit evidence of rheumatism to uric acid conditions in joints, fibrous structure, voluntary muscles and cardiac membranes. But the uric acid state probably acts upon the most susceptible part of the organism and hence it may effect perceptibly almost any tissue or part of the body, most prominently, joints, ligaments, muscles, skin, throat, teeth, eyes, ears, urethra, intestines, the serous membranes generally, the excretory mucosae and the nervous system."

It will thus be seen that Tongaline is indicated in many diseases for which it is not always used, as there is no more reliable remedy for the prompt and thorough elimination of uric acid.

## Reviews and Book Notices

**The Diseases of Children**—By Henry Enos Tuley, M.D., Late Professor of Obstetrics, University of Louisville, Medical Department; Visiting Physician Masonic Widows' and Orphans' Home, Louisville, Ky.; Secretary of the Mississippi Valley Medical Association; Ex-Secretary and Ex-Chairman of the Section on Diseases of Children, American Medical Association; Ex-President American Association Medical Milk Commission, etc. With one hundred and six Engravings and three Colored Plates. Second Revised Edition. St. Louis. C. V. Mosby Co. 1913.

Dr. Tuley has in his work given the profession a most excellent treatise on Diseases of Children. This, the second edition of the work, brings it fully abreast with the progress of medicine. The author has made numerous additions besides having almost entirely rewritten many chapters in the book. The author throughout has consulted the needs of the practitioner and the student. New good formulæ have been added and the question of milk feeding of infants has been carefully considered. We regard the work as imminently fitted as a guide for student and practitioner, and feel sure it will meet with a welcome from the profession.

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**Marriage and Genetics, Laws of Human Breeding and Applied Eugenics**—By Charles A. L. Reed, M.D.; F. C. S. Fellow of the College of Surgeons of America; Member and Former President of the American Medical Association; Professor in the University of Cincinnati. The Galton Press, Publishers, Cincinnati, Ohio, U. S. A.

This excellent book appears at a most opportune time—at a time when the medical profession is beginning to awake to the great importance of human breeding—of suitable marriages and of diseases that have contributed so much to marital unhappiness and suffering. To quote from the preface: "The topics are of vital importance to every prospective husband and wife and to their unborn children. No parent can fully discharge his or her duty without taking a full cognizance of the truths that are here set forth. I therefore offer no apology for sending out a message, a proper consideration of which will, I am convinced, insure to the welfare of the people now living and of coming generations."

# NASHVILLE JOURNAL — OF — MEDICINE AND SURGERY

CHARLES S. BRIGGS, A. M., M. D., Editor

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VOL. CVII.

OCTOBER, 1913.

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## Selected Articles

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### SUDDEN DEATH DURING CONFINEMENT.

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(Translated from an extract in the *Journal de Medicine et de Chirurgie*, by W. T. Briggs, M.D., Nashville, Tenn.)

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Dr. Rudaux, hospital obstetrician in *La Clinique*, writes of conditions in which sudden death occurs during or shortly after delivery. In labor proper, rupture of the uterus, hemorrhage, organic heart disease, embolism or cerebral hemorrhage, at times even shock, are the conditions which bring about sudden death. During labor itself, heart diseases, hemorrhage, at times vaginal and uterine injections can be the cause of sudden death. But we here claim, according to the researches of Dr. Rudaux, that sudden death may occur several hours after delivery. From a clinical point of view the several hours which follow delivery properly so called belong still to the period of accouchment. The patient feels good, she is enjoying a well deserved rest, yet her system feels the effects of the severe ordeal through which she has just passed. Her circulatory system has to adapt itself to certain radical and rapid changes that follow the expulsion of the child and which still obtain after the expulsion of the afterbirth. The uterus should contract in order to close the mouths of all the blood vessels which otherwise would empty themselves into the cavity of the womb. On this account the attending obstetrician should



constantly during this period of confinement give close attention both to the necessary contraction of the womb and to the pulse phases.

Subjects of heart disease are threatened with sudden death as the result of asthmatic crises, of pulmonary œdema or even an attack of heart failure or loss of cardiac tone, for the arterial hypertension incident to the condition persists a certain time after delivery.

The uterus, for the same reasons as apply to the foregoing conditions, that is exaggerated fatigue, excessive distension, insertion of the placenta to the inferior segment of the womb, too rapid delivery, etc., may be affected with inertia and as a result there occurs a dangerous degree of post partum hemorrhage. This inertia and its result—hemorrhage—can be brought about by an incomplete delivery, by the retention of clots in the cavity of the uterus or by the presence of inflammation in the body of the uterus. The gravity of these hemorrhages is in proportion to the degree of care taken by the accoucheur and frequently occur when the attendant in the case leaves the bedside of the patient too soon. It is during this period, just after delivery, that occurs that form of anemia graphically described by Tarnier and Burdin: "After a considerable loss of blood, the patient seems to have recovered, and she has responded thoroughly to stimulants, she is regarded as out of danger, when in two or three hours, possibly twenty-four hours after the accident, she is found dead in bed. This is a sudden death which nothing could have prevented."

After a long and painful labor, after a difficult instrumental delivery, the woman may die without such appreciable causes as hemorrhage or rupture of the uterus or inversion. She may die of shock. Death is due to a veritable nervous exhaustion. "In the economy there is only a given amount of nerve strength and resisting power" (Cruveilhier).

Moral suffering can act in the same way. Added to physical pain, it can lead up to fatal syncope. It is in this way that medico-legal experts explain certain fatal results occurring during clan-

destine accouchements, even when there is no evidence of hemorrhage or other threatening accidents.

Pulmonary embolus and the entrance of air into the veins should be considered as conditions likely to obtain in the period immediately following delivery. For a long time these two accidents have held first place in the classification of the causes of sudden death after delivery. Pulmonary embolism is fatal only when the trunk of the pulmonary artery or one of its principal branches of bifurcation is obstructed. The clot most frequently escapes from a uterine sinus as the result of a violent movement or sudden exertion on the part of the patient. According to Brouardel, the clot (or embolus) may escape from a thrombus of the lower extremities or from the vena cava which he considers as possible before confinement or even from a thrombosis of the peri-uterine veins.

Carlo reports in a paper a case of Charles of Brussels in which sudden death supervened the day of delivery. It happened in a woman in whom there was a vicious attachment of the placenta causing hemorrhage during the period of dilatation. For the repression of the hemorrhage recourse was unfortunately had to a septic tampon.

The entrance of air into the veins was for a long time looked upon as the principal factor of sudden deaths following labor. A great deal has been written on this subject since 1818. But the theory has never been generally agreed upon. The gases which have been formed in the vessels may have been the result of cadaveric putrefaction or to the entrance into the vessels of such gases at the very moment of death.

Sudden death, then, may occur during delivery or in the period immediately following that process. When it occurs as a sequel to delivery it can be brought about by the same causes that act in delivery, that is, as the result of organic heart trouble or of syncope. But the principal cause of sudden death in the immediate post partum period is infection which gains entrance at the time of delivery and more especially the infection which has its origin in the venous system. When we look over obstetric literature bearing upon the subject we find that embolism is the most

common cause of sudden death in the period immediately following parturition. The embolus may occur in a woman who has a well marked phlegmasia alba dolens or a latent phlebitis, an affection which has been ably described by Dr. Brun and Madame Liehrman. In the two cases the picture is the same. A woman with phlebitis makes an effort to raise up or sit up in bed or even it may happen with a patient presenting no sign of inflammation of a vein, who gets up for the first time in order to leave the hospital sooner than she should, she cries out, becomes pale and falls back dead.

Sometimes the scene is less rapid and time is given to assist the organism in the asphyxia caused by the arrest of a clot in one of the branches of division of the pulmonary artery. Whether as the result of sudden movement or more rarely without apparent cause, the patient feels all at once an extreme sense of suffocation, she has the feeling of a tight constriction of the chest, she experiences a sensation of being smothered, she fights for her breath, the mouth is widely open, the nostrils are distended, the face is cyanosed, the eyeballs protruding, the pulse at first rapid, becomes very feeble at the same time that the extremities get cold and in the space of several agonizing minutes, sometimes even in half an hour, the patient succumbs. It is more frequently on the fourteenth or the twenty-fourth day, sometimes sooner, towards the tenth day, sometimes later, a month after delivery, that this accident occurs.

In the course of infection of puerperal origin, sudden death may supervene as the result of intense general septicæmia, simply the puerperal toxæmia of Hervient, either localized in the serous envelopes of the heart or of the lung or in the musculature of the heart. As in all infections the myocardium may be weakened all at once by the action of toxins upon the tissue. This action upon the myocardium is the same as that produced by the diphtheritic toxin. So sudden death from myocarditis may supervene in the course of manifestations of infection or in full convalescence.



## THE MANAGEMENT OF HIGH BLOOD PRESSURE.

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BY GEORGE MORRIS PIERSOL, M.D.,Associate in Medicine in the University of Pennsylvania.

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At the outset it must be clearly borne in mind that persistent vascular hypertension is not a disease *per se*, but is merely a symptom of some underlying morbid process. When, through the introduction of clinical sphygmomanometers, high pressure first came to be generally recognized there was a decided disposition to focus the attention too much on this symptom and, regardless of its significance, to attempt to combat it by vigorous measures. Happily this tendency has gradually yielded to a more rational conception of the process, and we are learning to appreciate the importance of the teachings of Loeb,<sup>1</sup> Janeway,<sup>2</sup> and others, namely, that high blood-pressure is primarily compensatory. In the two most important conditions associated with hypertension, chronic nephritis and arteriosclerosis, it has been shown that in the former the high blood-pressure is essential in order to maintain adequate elimination through the damaged kidneys, and in arteriosclerosis the elevated pressure helps increase the circulation in organs whose nutrition is impaired because of their diminished blood supply. Nature, nevertheless, sometimes overdoes in her efforts at compensation. Just as fever, useful as it is, may become so excessive as to endanger the organism; so with blood-pressure, the elevation may reach a point that makes efforts directed toward its reduction justifiable. When such is the case, we should not be content with the mere attempt to control this one manifestation of disease, but should seek for its underlying cause and so far as possible remove it.

When we consider that persistent high blood pressure results for the most part from lesions in the kidneys or blood vessels, it is evident that its treatment falls under two heads: (1) its prophylaxis, and (2) its management when once developed. Of these the former is by far the more important and hopeful, since in

arteriosclerosis and nephritis it is more than ever true that "an ounce of prevention is worth a pound of cure."

*Prophylaxis of High Blood-pressure.*—The first step toward the prevention of well-developed hypertension is the early recognition of the conditions which produce it. To this end we possess a method of clinical examination which is so readily carried out that it lies within reach of every practitioner, namely, the routine estimation of the blood pressure, both systolic and diastolic. Were this procedure performed carefully and systematically as part of the routine examination of all patients, regardless of the character of their complaints, nephritis would be recognized in its early stages before grave secondary changes occur in the circulatory system, and developing arteriosclerosis would be detected at a time when elevation of pressure is only moderate and due to vessel spasm, before anatomical changes in the vessel walls render therapy of little avail. The importance of routine blood-pressure determination, therefore, as a prophylactic measure, can not be too strongly emphasized.

When an individual approaching or past middle life shows early evidence of arteriosclerosis, much can be done at least to prevent a further advance of the condition. If by good fortune organic changes in the vessels have not yet occurred, and vessel spasm alone is present, the outlook is encouraging, provided adequate treatment is conscientiously carried out.

Such treatment involves first of all proper attention to the patient's general hygiene and mode of life. Physical over-exertion as well as mental strain and worries must be avoided; the patient should take a proper amount of recreation and rest—the latter, particularly, must be insisted upon—and recreations must be devised which afford the patient a maximum amount of fresh air and moderate exercise without causing any over-exertion or fatigue. Proper elimination should be insured by having the patient take several times a week hot-air or electric baths or hot packs, and the bowels should be kept freely moved without causing actual purging.

Of equal importance in these cases is the diet. Alcohol, coffee, and all irritating food and drink should be avoided, and the quan-

tity rather than the quality of the diet should be restricted. The intake of nitrogenous foods should be reduced and the patient given an otherwise wholesome, sufficiently mixed diet. Water should be taken freely, but only in moderation with the meals.

If intestinal toxemia is suspected or proved, high colonic irrigations two or three times a week are of value, and there are some who have claimed good results from the use of the Bulgarian lactic acid bacillus. As a result of the teachings of Lane, at present a popular intestinal antiseptic and laxative is found in paraffin oil administered in cold water after each meal in doses of one-half ounce.

All sources of chronic infection, as sinusitis, pyorrhea alveolaris, chronic prostatitis, or pelvic inflammatory disease, etc., must be sought for and removed. Many cases occur in which arteriosclerosis develops as the result of gradual intoxication from a focus of chronic infection. I can recall two cases of sclerosis in which chronic cholecystitis played an important role in the etiology. I have under my care at present a woman in whom a gradually developing arteriosclerosis and nephritis are undoubtedly the result of a chronic pelvic infection. The benefit which occurs following the removal of such foci of intoxication was shown by the case of a middle-aged man, previously healthy, who gradually developed a systolic blood pressure of 100 without apparent cause. Careful search finally revealed the existence of a chronic low-grade sinusitis. After this condition was removed his blood pressure soon returned to normal, where, so far as I know, it has remained.

An additional prophylactic factor of importance in arteriosclerosis is the education of the patients themselves to the necessity of easing up upon the activities of life after fifty is reached; to the advantage of lessening the quantity of food taken as they grow older, and the avoidance of alcohol, tobacco, etc.; and finally, to the wisdom, as a precautionary measure, of submitting themselves for physical examinations and blood pressure determinations at stated intervals.

The prevention of nephritis does not differ materially from that above outlined, since the causes of chronic nephritis are not



dissimilar from those of arteriosclerosis. In addition, however, the frequency with which nephritis follows infections, even of minor grade, must not be lost sight of, and it is incumbent upon the general practitioner to see that all cases of acute infections, however mild, are kept in bed, their diet restricted, and their elimination adequately maintained; that every effort is made to prevent the occurrence of a nephritis; and that before these patients are finally discharged it is definitely determined that their urine is normal and that no abnormal alteration has occurred in their blood pressure. Were these measures conscientiously carried out, there is no doubt but that many cases of chronic Bright's disease and arteriosclerosis might be averted.

*The Treatment of Developed Hypertension.*—The management of high blood pressure, when its existence depends upon some well-defined, irremediable anatomical change in the organism, is both difficult and unsatisfactory. Whether the dominant lesion is renal or vascular, the underlying cause is usually toxic and the hypertension is in part compensatory, hence our chief efforts must again be to aid Nature by increasing the elimination and lessening the production of the toxic agent. The measures most useful for this purpose are comprised under the following:

*Rest.*—No more efficient method exists of lowering blood pressure and giving the body an opportunity to readjust disturbed functions than prolonged rest in bed. Even when complete rest is not desirable the patient's daily life should be regulated so as to allow for periods of rest and quiet during the day and at least eight hours in bed every night.

A principle of fundamental importance in the management of hypertension is the prevention of all forms of sudden strain and the avoidance of everything which tends to produce bodily or mental fatigue.

*Dictetic.*—As in the prophylactic treatment, the diet in cases of high blood pressure should be limited in quantity particularly, especially as overeating has frequently been the fundamental error in many of these cases. The nitrogenous intake should be restricted and all stimulants, especially alcohol, coffee, and tobacco, must be avoided. The patients should be instructed to eat

regularly, slowly, and to chew well; to rest one-half hour after meals, and to take their heartiest meal at midday; to limit the amount of fluid taken with each meal to six ounces, and to drink water between meals.

*Elimination.*—In addition to the kidneys, the chief avenues through which elimination may be obtained are the bowels and the skin. Violent cathartics are contraindicated, but several free bowel movements should be obtained daily by the use of such laxatives as senna, rhubarb, cascara, and milk of magnesia. The addition to the diet of stewed fruit is of great help in this respect. In some cases the salines in moderate doses taken in plenty of water before breakfast seem most efficient. A good practice is in addition to have the patient take a dose of blue mass (gr. v-x), followed by a saline every two or three weeks.

Various forms of sweating have been devised in order to increase the activity of the skin. The excessive sweating sometimes advocated is frequently harmful to many of these cases of high pressure, and the steam room of the Turkish bath is decidedly depressing and dangerous. Short electric-light baths, carefully given, or hot packs, or even simple hot baths are usually sufficiently vigorous measures. In beginning treatment it is well to have the patient take such a bath every day for a week, then the next week every other day, and finally two or three times a week as a routine procedure. The value of these baths is not that they cause any permanent or marked lowering of the pressure, for it has been shown that the lowering is only moderate while the baths are being taken and that the blood pressure soon returns, but that they cause increased elimination by inducing cutaneous hyperemia, which in turn lessens the congestion of the splanchnic and other great visceral vascular areas.

The slight blood pressure lowering effect of vapor baths was clearly shown in a patient under my care at the University Hospital. This patient, a man aged sixty-two years, who had a chronic interstitial nephritis with a systolic blood pressure which ranged for months between 220 and 260, became uremic and was given frequent vapor baths. A series of blood-pressure readings made before and after these baths showed that one-half hour

after a bath the systolic blood pressure only fell from 2 to 12 mm., and the average decrease in the diastolic pressure was but 5 mm.

A procedure of undoubted value in the management of certain cases of high tension is venous section. This method does seem to cause at least a temporary lowering of pressure, and may be practiced with safety provided the amount of blood withdrawn is controlled by frequent blood pressure readings. Twelve to twenty ounces can usually be removed with impunity. Miller<sup>3</sup> found the blood pressure was lowered only for a short time, and in cases of uremia that were bled, the pressure was often not lowered at all. Another uremia patient, which I observed at the University Hospital, following a convulsion, had a systolic blood pressure of 275 and a diastolic pressure of 170. Eighteen ounces of blood were withdrawn thirty minutes after the convulsion, and immediately after the bleeding his blood pressure was, systolic 230, diastolic 170. Within five days, however, in spite of active eliminative measures, his blood pressure had returned to its former level. The good that results in these cases from bleeding may be due to the withdrawal of a certain amount of toxic material.

*Drugs.*—Finally we may turn to a consideration of drugs in the treatment of persistent hypertension. The promiscuous use of the nitrites whenever high blood pressure is encountered, regardless of its significance, must be looked upon as an ill-advised therapeutic habit into which too many of us have fallen. From the careful work that has of late been done on this subject it seems well established that not only do the nitrites fail to do any good, but in a number of cases, if we accept the compensatory conception of hypertension, they are capable of positive harm.

That nitrites lower blood pressure by dilating the vessels is undoubted, but that this lowering is decidedly fugacious is equally certain. It has also been shown that when nitrites are used over any length of time in ordinary doses their vasodilator effect becomes nil. In a series of careful observations Miller<sup>4</sup> showed that when either nitroglycerin, erythrol tetranitrate, or sodium nitrite was given, a fall of blood pressure strikingly similar in each case resulted in two to four minutes, but that in each case this fall



was but temporary and that in two hours the blood pressure had regained its previous level. From this it is evident that these vasodilators find their chief use when it is necessary to combat some sudden condition of spasm such as angina pectoris or nocturnal dyspnea, but that they are inefficient as routine means of treatment.

In a series of fifty cases in which the average systolic pressure was 200 mm. recently analyzed by me, nitroglycerin was employed at some time in the treatment of twenty-seven cases. Of this number it seemed to have a beneficial effect on the blood pressure in but three; in six its advantage or disadvantage could not be determined; while in the remaining nineteen cases it had apparently no noteworthy effect.

In contradistinction to vasodilators and paradoxical as it may seem, distinct benefit seems to have resulted from the use of digitalis in some cases. Cushny<sup>5</sup> has amply demonstrated that except in conditions of low tension and circulatory failure digitalis does not raise blood pressure. This drug may, therefore, be employed in small doses with safety in these cases. It does good chiefly in those patients in whom cardiac weakness is developing, and often is wonderfully efficient in relieving the distressing dyspnea and vertigo.

In my series eight cases were markedly helped symptomatically by the use of digitalis, and one-half of these patients were showing some indication of decompensation.

Cardiac depressants sometimes are effective in relieving certain of the most distressing symptoms of hypertension, such as the headaches, throbbing, and vertigo. In one patient with a blood pressure of 220, after all else had failed, aconitine in doses of gr. 1-240 every four hours relieved a persistent headache. Another patient who for years has had a tremendously high blood pressure, obtains some relief from her headache by taking the tincture of aconite in doses of fifteen to twenty-five drops four times a day. The slight effect which these enormous doses have on her blood pressure and her general condition makes one agree with Rudolf<sup>6</sup> and question the efficacy of the ordinary doses of this preparation. She recently took 100 drops a day of the U. S.

P. tincture of aconite continuously for five weeks, and before, during, and after this period her blood pressure remained fairly constant—systolic 220 to 230; diastolic 130 to 150. Like aconite, veratrum viride may sometimes prove useful in lessening blood pressure. In one of the uremic patients above referred to the fluid extract of veratrum viride, given in doses of 3 minims every four hours for three days, reduced the systolic blood pressure only 6 mm., but the diastolic fell 15 mm.

The iodides have always enjoyed a reputation in the treatment of hypertension. Their exact mode of action is not clear and their use is largely empirical. Thamias,<sup>7</sup> however, believes that when arteriosclerosis is of syphilitic origin potassium iodide does good. Perhaps the secret of the value of the iodides will be revealed when Wassermann reactions are done more frequently in these cases of high arterial tension. In view of the fact that anti-syphilitic treatment does seem to help some cases in which lues is the etiologic factor, the Wassermann reaction assumes an importance from the standpoint of both prognosis and treatment.

All things considered, it must be admitted that in well-developed hypertension dependent upon organic changes, be it of vascular or renal origin, efforts to lower it are of but little avail. In the fifty cases I have analyzed, in only fourteen can it be said that any of the therapeutic measures employed had much effect on lowering the blood pressure. On the other hand, there is little doubt but that the general hygienic treatment of these patients, relieving them from physical exertion and mental anxiety, regulating their digestions, and promoting their elimination, were most important factors in adding to their comfort and prolonging their lives, even though the hypertension itself was unaffected.

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- <sup>4</sup> *Loc. cit.*
- <sup>5</sup> Cushman: *Textbook of Pharmacology and Therapeutics*, Philadelphia, 1910, p. 373.
- <sup>6</sup> Rudolf: *Amer. Jour. Med. Sci.* December, 1912.
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—*Therapeutic Gazette.*

## Extracts from Home and Foreign Journals.

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### SURGICAL

#### THE TREATMENT OF LUES.

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Cole (*Cleveland Journal*, April, 1913,) after reviewing the modern concept of syphilis and the application of drugs for its relief states that the ideal treatment, and the one being practically used at several of the best known European clinics, is as follows: The patient receives an intravenous injection of neosalvarsan, the dose depending on the case and on circumstances. At the same time or even a little before, an intramuscular injection of oleum cinereum, 0.125 cc., is given and repeated in three days if well borne. The arsenic preparation is likewise repeated after eight days, though in a larger dose, and twice again in the space of two weeks; while for four consecutive weeks the patient receives an intramuscular injection of 0.25 cc. oleum cinereum. During all this time an injection of mercury biniodide of one-fourth of a grain (0.01 gramme) might be given the middle of each week, and in the respite of five or six weeks in the oleum cinereum injections it could be used once or twice a week. Then another series of five injections of oleum cinereum of 0.25 cc. each is made, one each week. One course of treatment is then finished and the patient is allowed a rest of a month, when a Wassermann reaction is tried. If it be negative he is allowed to wait another month, when it is repeated. If it still be negative, the patient is, notwithstanding, given an intravenous injection of neosalvarsan and told to come back in two months for another blood examination. If it be still negative the question then arises: Is this patient cured, or not? We are still unable to settle this question definitely, and the writer suggests that at any rate another course of treatment should be given. Then if the blood still shows nothing, probably the patient is cured, though we must yet plead



partial ignorance, and it would be well to examine the blood every six months for a year or so. The present attitude in Europe is to inject approximately 2 grammes (30 grains) of metallic mercury into the patient's system in the first year's treatment, and, depending on the case, if required, 1 gramme (15 grains) in the next two years. No luetic should be allowed to marry before he has had at least one year of the most intensive treatment and before his Wassermann reaction has been negative for at least two years. Marie Kauffmann-Wolff in her records of forty-five marriages, puts the patients in three classes, viz.: (1) wives of luetic husbands, the latter having been syphilitic before marriage or having contracted the disease extramatri-monially after marriage; (2) wives who have several times aborted or who have been the mothers of luetic children; (3) cases which belong to the type of "syphilitic hereditaria." In forty-five cases so married, thirty are still living. Twice as many men as women are dead, and among the men diseases of the circulatory organs were the cause of death in one-half of them. Two of them had tabes, and two, still living, are suspicious of tabes. The greatest number of deaths were between the ages of forty and fifty. Of thirty still living seventeen show signs of lues, thirteen not. In one of the cases the wife was infected seven years after the husband had contracted lues. Of eighty-one pregnancies from the marriage there have been twenty abortions, three early births, five still-births, and twenty deaths in early childhood up to two and one-half years. Nine of the marriages have been childless—*i.e.*, five of them have been sterile, and in the other four there have been only abortions.

Syphilis is yearly sending thousands of our citizens to asylums and passing over stigmata to hundreds and hundreds of our children.—*The Therapeutic Gazette*.

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#### TREATMENT OF TETANUS.

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McClintock and Hutchings believe that the following conclusions are warranted by their experiments: Amputation after the appearance of symptoms is of no value. The toxin appearing in

the blood stream is selflimited even in the fatal cases. There is little if any value in the phenol treatment of the disease. If there is any gain, the authors believe it is probably due to the sedative action of the drug and not to any direct action on the disease process, and that this result may be obtained with greater certainty by other drugs. The magnesium sulphate as used in their experiments subcutaneously was of no value. Antitetanic serum alone has a definite, although usually insufficient, curative effect. From the observation of a large number of animals and quite a number of human beings dying of tetanus, the authors thought that the exhaustion due to the muscular contractions is a large factor in producing fatal results. For this reason much of their work has been given to the attempt to hold these convulsions in check. The presence of a large amount of toxin in the blood several days (in sheep it can be demonstrated four days) before the onset of clinical symptoms makes it imperative that a method be devised for easily determining this. With such a method it is quite probable that a large proportion of tetanus cases could be saved. At present the best that can be done in the treatment of tetanus is to neutralize the toxin with repeated doses of serum while controlling the muscular spasm with some drug, —*The Journal of the American Med. Asso.*

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#### TREATMENT OF FRACTURE OF THE NECK OF THE FEMUR IN THE AGED.

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The three essentials in the treatment of fracture of the neck of the femur in the aged are: (1) To keep the patient alive. (2) To obtain union of the fracture. (3) To secure as useful a limb as possible.

I am assuming that a correct diagnosis has been made by means of the clinical, X-ray examination under narcosis, etc. The first thing to do is to make the patient comfortable while confined to bed. Shock should be treated with stimulants and anodynes and the limb supported by sandbags or a simple splint. Special attention should be paid to the diet and the bowels and the urine carefully watched. A skilled nurse should be employed, who

knows not only how to care for, but also to entertain, the patient. The pulse and respiration should be regularly taken and all pressure spots and bed sores should at once receive the proper attention. Whether the fracture is within or without the capsule of the joint is of no great importance; but whether it is impacted or unimpacted is of great moment, because impacted fractures unite very readily, while the unimpacted often remain ununited and may require operative intervention.

The rational treatment is to place the leg in as natural a position in extension as possible. With the knee flexed with a pulley, strips of adhesive plaster should be applied to the leg and thigh as high up as the perineum and held in position by a gauze roller bandage. A weight of about 5 pounds should be attached to the extension strips while the leg is gently rotated and carefully placed in the normal position. The foot of the bed should be elevated about 6 inches to secure counter-extension. Sandbags should be placed on either side of the leg and thigh to afford support and give security. This treatment will not be applicable to all cases, since some require some form of fixation, of which the Thomas hip splint is another dressing that can be recommended. Sands advised a plaster-of-Paris spica bandage which extends from the nipple to the toes, and this has the advantage of securing perfect immobilization and constant traction, which can not be accomplished with a weight and pulley. However, one of our main objects should be to get the patient out of bed at the earliest possible moment, for the great danger in this class of cases is the occurrence of complications, such as hypostatic pneumonia, embolus, etc. In order to prevent these, either the plaster-of-Paris spica bandage should be applied or Hodge's suspension splint used as soon as feasible.

Up to the present time it is very evident that perfection has not been achieved in the treatment of this class of fractures, and in view of the great diversity of opinion which exists I am inclined to believe that the best method is the one that the individual knows best how to use, for the main object, after all, is to secure for the patient the most satisfactory functional result that can be obtained.—*International Journal of Surgery.*



## POSTANÆSTHETIC ADMINISTRATION OF GLUCOSE.

Anæsthesia causes a sudden drain in the reserve supply of glycogen in the system. If the patient be not suitably fed, he begins to live at the expense of reserve fats, and, to some extent, proteins. These are imperfectly oxidized, and the intermediate products resulting from incomplete oxidation are toxic. The liver, upon which develops the task of neutralizing these toxic substances, is in a state of general functional inferiority owing to the lack of glycogen. From this the authors conclude that in order to combat postanæsthetic intoxications, carbohydrates must be supplied to the organism, both for prophylactic and curative purposes. Glucose (grape sugar) which is directly absorbable, is the food of choice for operated individuals. In order to facilitate its ingestion in sufficient amount, the following combination is prescribed by the authors:

R Glucose (150 Gm.).  
Tincture of nux vomica, *m viij* (0.5 Gm.).  
Tincture of cinnamon, *m L* (3 Gm.).  
Water, enough to make  $\mathfrak{z}\text{x}$  (300 c.c.).

M.

This is to be taken in dessertspoonful doses every half hour. Vomiting is not only induced, but is arrested, by this solution. Where toxic disturbances have already appeared, glucose should be given freely by all routes: orally, rectally and even intravenously. Alkalies should also be administered, in conformity with the prevailing practice in diabetic coma.—*Medical Review of Reviews*.

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POSTOPERATIVE PAIN.

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The other day I had a tooth extracted. It was broken off and for ten minutes the operator hunted for the root, unsuccessfully. The gas anæsthesia endured about 50 seconds, so that I suffered acutely for over nine minutes. I reached my home, enduring agonies; every tooth in both jaws aching and exquisitely tender.

I consulted the dentist, who assured me the pain was from the operative injury.

That gave me the clue—one of the advantages claimed for H-M-C anæsthesia is the abolition or rather prevention of post-operative pain—and I am a firm believer in preventive medicine. If this remedy prevents such pain it also relieves it, so I took hypodermatically a half tablet containing morphine, grain 1-8, hyosine, grain 1-200, and cactoid, grain 1-128.

In a few minutes the pain seemed bearable; in twenty minutes it was fairly controlled. I slept well that night. Next day the face was swollen, but the pain presented only in occasional twinges.

Judging from the reports of correspondents I had learned to look on this combination as the most powerful means at our disposal for the severer forms of pain; but this was my first personal experience with it.

In view of the atrocious character of the pain I am amazed at the speedy and permanent relief afforded by this minute dose. I had sometimes taken a dose of morphine alone to break up a cold, with good effect indeed, but a miserable headache next morning that always made me regret I had not let the cold run its course. This time there was no unpleasant symptoms following, not even constipation.—*Texas Medical Journal*.

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#### ABOLISHMENT OF POSTOPERATIVE PAINS WITH NERVE BLOCK A DISTANCE.

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Leigh Watson, of Oklahoma City, believes the abolishment of pain after operation is most important. He uses a simple and efficient nerve block a distance (*Annals of Surgery*, May, 1913). Before beginning the operation, he generally uses weak cocaine or preferably novocain,  $\frac{1}{4}$  per cent solution with adrenalin, and, whenever possible, both begins and finishes the operation under local anesthesia. When analgesia is complete, he uses urea and quinine, which provides a complete nerve block. He finds that this combination gives an analgesia which continues from three to seven days. By the time the nerve block a distance has lost its

effect, healing has progressed sufficiently to make further anesthesia unnecessary. With a comfortable and painless convalescence, it is reasonable to presume that as it becomes generally known that the post-operative pain can be eliminated, surgery will lose much of its dread and perhaps operations will become more popular.—*The Lancet-Clinic*.

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THE IDENTITY OF THE CAUSE OF ASEPTIC WOUND FEVER AND SO-CALLED POST-OPERATIVE HYPERTHYROIDISM AND THEIR PREVENTION.

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As any form of force is converted into heat, the result of a psychic or mechanic stimulus reaching the brain should result in the production of heat. Operations performed under the principle and technique of anoci-association, showed a changed post-operative temperature and pulse curve. Blocking the wound with quinine and urea hydrochlorid, eliminated the post-operative phenomena of temperature and pulse. (Crile, *Ann. of Surg.*, May, 1913.) As reasons have been given for considering Graves' disease a disarrangement of the general motor mechanism lowering the threshold of the brain to both traumatic and psychic stimuli, it can be seen that the brain in a case of Graves' disease is driven harder by a given stimulus, than is the normal brain. A greater change in the pulse rate and temperature is the result. As morphia raises the threshold to stimuli, i. e., it makes it more difficult for stimuli to reach and act on the brain cells, the effect of that drug upon the pulse and temperature is explained. It explains why a case of Graves' disease under excitement without operation, shows the same phenomena as a case operated upon without anoci; and finally explains why a case operated upon under anoci, lacks these phenomena.

If at the time of operation, the patient receives such powerful psychic excitation that he tends, later, to recall the event, each time the original harmful stimuli of the operation are recalled through associative memory, there results a driving of the motor mechanism. Operating under anoci, prevents the impression



upon the brain. Therefore there can be no destructive recapitulation, *no annoci-associations*, consequently no retardation to normal convalescence. Thus there is a general principle underlying both postoperative hyperthyroidism, the latter being a pathologic, a magnified postoperative wound fever.—*Med. Review of Reviews*.

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### THYROTOMY FOR CANCER OF THE LARYNX, WITH REPORT OF ELEVEN CASES.

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Dr. D. Crosby Greene, Boston: In a paper presented to this association in 1906 we reported the results of an investigation of the lymphatic drainage of the larynx by means of submucous injections of methylene blue and mercury. The results obtained are confirmatory of those reported by others in showing that the network of lymphatic vessels which extends beneath the mucous membrane throughout the interior of the larynx is richer in the number and size of the vessels in the supraglottic region, relatively poorer in the subglottic portion, while on the vocal chords the vessels are very small and widely separated. These anatomic facts account for the slow growth and late development of the disease in the cervical lymph nodes in cases of epithelioma of the chords, and furnish an argument for the possibility of cure in early cases by the operation of thyrotomy and excision of the growth with a wide margin of healthy tissue. This is supported by the result of the operation in the hands of numerous operators, both in this country and abroad, so that at the present time it is almost universally recognized as the proper procedure for the treatment of early intrinsic cancer of the larynx. Certain details of the technic have an important bearing on the immediate and after results of the operation. The steps of the operation are: 1. Ether by inhalation, preceded an hour before by one-fourth grain of morphine and 1-150 grain of atropin. 2. With the head slightly extended, a median incision is made, extending from the lower border of the hyoid bone to the lower border of the cricoid cartilage. This incision is carried down through the prethyroid muscles until the thyroid and cricoid cartilages and cricothyroid mem-

brane have been definitely exposed. 3. A one per cent, solution of cocain is injected through the cricothyroid membrane into the cavity of the larynx. 4. The patient is now placed in the Trendelenberg position and a thick pad placed under the shoulders to bring the larynx into prominence. 5. The cricothyroid membrane is next incised in the median line, and through this incision a swab of 10 per cent solution of cocain is introduced and applied to the laryngeal mucous membrane. 6. The thyroid cartilage, after a pause of five minutes, is divided from below upwards. In young subjects this may be done with a knife, but in the majority of cases where the cartilage has become ossified it is best to use strong curved scissors with dull points. 7. The thyroid wings are now widely retraced and an examination of the growth made under good illumination. 8. Beginning at the free margin of the thyroid cartilage, on the affected side in front of the growth, the internal perichondrium is elevated from off the cartilage with a sharp elevator from before backwards to a line well behind the limits of the growth, as well as above and below it. All the soft structures are thus freed from the underlying cartilage. 9. Parallel horizontal incisions are now made with scissors above and below the growth. These incisions are carried about one-half inch back of the posterior limit of the growth. 10. The growth, with its surrounding tissue, is now entirely removed with a wire snare by which the posterior attachments are severed. Much depends on the proper selection of cases. When the growth is so extensive, even though confined within the cavity of the larynx, that the larynx can not be opened without cutting into the growth, recurrence is not only possible, but probable.—*New Orleans Medical and Surgical Journal*.

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#### SPOROTRICHOTIC OSTEOPERIOSTITIS OF THE UPPER JAW.

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D'Agata mentions the great interest awakened by the ever increasing number of manifestations and appends an instructive case of bone lesion of this origin. The patient was a youngish woman without children. Stock sound. At the age of 17 she

was in Brazil and developed severe anemia, recovering after two years with the intensive and persistent use of arsenic. Married at 24, she never became pregnant, although her husband was strong and healthy. Two years later developed an osteoperiostitis on the shin bone, thought to have been tuberculosis, and treated as such with negative results. The purulent surface which had been exposed and drained was now regarded tentatively as syphilitic, but again failed to respond to treatment. The exposed surface finally healed spontaneously, just as a fresh lesion appeared over the cheek. This increased in size until it involved the upper gum and attacked the tooth sockets. A diagnosis was made of osteoperiostitis of the upper jaw. The condition, having reached a self-limitation, remained unchanged for ten months. Prolonged study finally excluded tuberculosis, syphilis and actinomycesis. By exclusion, aided by cultural efforts, a diagnosis of sporotrichosis was made. The peculiarity of this case appeared to be its debut in the bony structures; for as a rule it attacks the latter as a result of disease of the soft parts, or the hard and soft parts are involved jointly. The rarity of the exclusive bone localization is shown by the fact that the case reported is the first known to have occurred in Italy.—*Medical Record*.

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## MEDICAL

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### A SIMPLE METHOD FOR THE RELIEF OF ORDINARY FAINTING.

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While attending St. Peter's Hospital in London in 1899 I was impressed with a simple procedure in daily use for the relief of this condition. It was the custom of the surgeons at that time, Mr. Reginald Harrison, Mr. E. Hurry Fenwick, Mr. J. P. Freyer and Mr. F. Swinton Edwards, to pass bougies and sounds with the patient standing. The many patients would form themselves in a long line and occasionally one of them would become faint, sometimes even before the instrument was passed. It was the custom to have a vacant chair beside the surgeon who, when he



noticed the condition of the patient, would have him seated in the chair, and the surgeon or his assistant would press the patient's head down between his (the patient's) knees, thereby lowering the head below the trunk, and by forcibly flexing the head on the chest retard the return of circulation and thus relieve the anemia of the brain. Holding down the head for a minute is sufficient. I have seen this done many times and since then I have done the same and have thereby saved myself much annoyance. If at the minute the patient shows the first sign of becoming faint the head is pressed well down between the knees, it will be unnecessary to use the horizontal decubitus. This method works beautifully in a crowded room or car.—*Journal of the American Medical Association.*

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#### ANGINA PECTORIS.

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In the *Clinical Journal* of May 21, 1913, Saundby tells us that the preventive treatment of angina consists in the avoidance of all those things that weaken the heart, and when it is weak, to use cardiac tonics, good food, and a hygienic mode of life.

The prevention of attacks when the liability to them exists lies in avoidance of sudden exertion, excitement, overloading the stomach, alcohol, tobacco, tea, coffee and cocoa, animal purins, and chilling of the surface of the body, especially by exposure to cold winds.

The drugs that are of most service are digitalis or Nativell's digitalin or gr. 1-300 of Merck's strophanthin three times a day.

During the attacks trinitrin in 2-minim doses dissolved in water is better than chocolate tablets or nitrite of amyl. Two or three doses of trinitrin can be carried in the waistcoat pocket in separate small bottles. Its action is more prompt in solution, and its effect is more lasting than amyl nitrite. Erythrol gr.  $\frac{1}{4}$  and mannitol gr. 1 have proved useful in certain cases, but Saundby gives the preference to those first named.

Where the patient is obese the diet should not only exclude purins, but be chlorine-free, no common salt being used in cooking or at table, and salt-free bread should be prescribed.

For syphilitic aortitis, biniodide of mercury gr. 1-12 and iodide of potassium 5 to 10 grains are still the best treatment. Stadler says that salvarsan has been often followed by fatal results, and he thinks that these should be treated in hospital or in nursing

Inhalations of oxygen have been sometimes found to give relief, but the gas should be warmed by passing it through hot water.—*The Therapeutic Gazette*.

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#### HEART DISEASE, USE OF SUGAR IN.

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From inquiries made by the author, cardiac cases with edema, cases with anginal pains, and cases where cardiac disease is secondary to renal disease do not seem to be improved by the ingestion of sugar. In a case of general paresis in which the pulse was failing, the author did not find it to have any effect. In another case, however, he believes that the patient's life was saved by it. A woman, aged 77 years, who had pulse irregularity for some years, developed a bad heart attack, with rapid, irregular, feeble pulse, cyanosis, and attacks of paroxysmal breathing. There was no edema. Inhalation of amyl nitrite gave temporary relief, but the condition then continued for some days, the patient steadily getting worse in spite of digitalis, strychnine, dry cupping, leeching, and frequent inhalations of oxygen. One day she seemed to be dying; in the evening it appeared doubtful if she would live through the night. The author ordered some lumps of ordinary white sugar to be given in milk, and added some syrup to the patient's medicine, instructing the attendants to give her 4 ounces (120 Gm.) of sugar during the night. In the morning the patient was found very weak, but less cyanosed and with a stronger, slower pulse. Digitalis had been omitted, as well as digitalin, as these had not had any effect. Four ounces of sugar were ordered during the ensuing twelve hours, and after that it was continued in smaller quantities for some weeks. The patient made slow but steady improvement. She gained strength, and at the time of writing was able to go out into the garden for a few minutes and to walk up and down stairs.—S. E. Denyer (*Lancet*, April 19, 1913).

PRELIMINARY REPORT CONCERNING THE PASSAGE OF BACTERIA  
THROUGH THE TONSILLAR TISSUE AS DETERMINED  
BY EXPERIMENTAL RESEARCH.

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Dr. George B. Wood, Philadelphia: From a study of our experiments it seems that the following conclusions may be drawn:

1. The tonsils in the hog are more readily infected by the anthrax bacillus than any other portion of the buccal or pharyngeal mucosa. The clinical history of this disease in the hog shows that in the great majority of idiopathic cases the pharynx has been the site of invasion, and in all of these cases of pharyngeal diseases the tonsils are the port of entry. In none of my experiments was there any involvement of the pharyngeal or buccal mucosa other than the tonsils. While the culture of anthrax was generally brought into more intimate contact with one of the tonsils, it was impossible to limit the bacilli to the tonsillar surface and they came into contact with a large part of the pharynx. In the infection an effort was made to rub the emulsion into one tonsil only and in one case the lesions were limited to one tonsil only, but this was not the tonsil on which the culture had been rubbed.
2. Anthrax bacilli penetrate through the cryptical and not the surface of the epithelium.
3. The anthrax bacillus probably gains access to the parenchyma of the tonsils by passing through the living epithelium, and having gained access through the superficial layers of the epithelium, they tended to multiply in the deeper layers and then pass into the interfollicular tissue.
4. The anthrax bacilli penetrating through the living normal epithelium cause a devitalization of the tissue, which paves the way for secondary infection from the staphylococci or other pathogenic organisms.
5. The rapidity of the invasion is influenced both by virulence of the organism and the susceptibility of the individual animal. Following the invasion the subsequent course of the disease is similar to that found in other tissues. The toxin elaborated by the bacilli causes at first an accumulation of polymorphonuclear cells, later necrosis of the tissue cells with disintegration of the nuclei. The germinating follicles show more resistance to



the disease than the interfollicular tissue. Associated with the necrotic process is an increase in the number and engorgement of the capillaries, and sometimes there is marked extravasation of the red blood cells. The anthrax bacilli accumulate in the lymph spaces and also around the blood vessel walls. In some of the sections examined the bacilli were found penetrating the blood vessel walls, and a few were found actually in the blood current.—*Texas Medical Journal*.

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#### PELLAGRA TREATED WITH GELSEMIUM.

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The administration of gelsemium in pellagra had not been tried previous to its use in the five cases reported by Roy Blosser, 1912 (*Charlotte Medical Journal*, July, 1913). Nineteen cases are included in the present report.

While admitting that there has not been sufficient time to fully demonstrate the value of gelsemium in the cases reported, because of the exceedingly chronic nature of pellagra and its annual remissions and exacerbations, the following facts seem to indicate that the use of this drug will prove to be of great value in the treatment of pellagra: (1) Every case of pellagra so treated, excluding two patients whose condition appeared hopeless from the start, made rapid improvement in every respect. (2) Up to June 10 none of these had shown any indication of a recurrence further than some degree of malaise during the first warm weather cases in this locality have, during the same time experienced a return of the eruption and other pellagrous symptoms. (3) While some of the writer's patients are not yet cured, he feels justified from past experience in assuming that a continuance of treatment will give as good results in these as in the earlier cases treated, inasmuch as they do not appear to differ in any essential particular. (4) The remedy seems to be effective at any time of the year.

The dose of gelsemium used has generally been three drops of a fluid extract (made from the green root) three times a day after meals, but the writer has, in most cases, cut down the dose

in a few weeks to two drops, and later to one drop, continuing the latter until all pellagrous symptoms had disappeared.

The manner in which gelsemium relieves the pellagrous manifestations can only be surmised until the etiology of the disease is known. If one accepts the theory that the disease is due to some form of intoxication acting on the central nervous system, it would seem reasonable to suppose that its effect is produced by relieving this central irritation. Thus can be explained the fact that it relieves such diverse symptoms as diarrhea, vertigo, burning sensations in the hands and feet, menorrhagia, etc. Its effect in checking diarrhea has been especially surprising, inasmuch as gelsemium has never been credited with having any stringent or sedative action on the bowels.

Gelsemium is a much less dangerous drug than is generally supposed. It seems probable that the depressing actions of the drug in the past have been due to variability in the method of manufacture or to preparations which have been allowed to evaporate or to throw down a sediment.—*Medical Review of Reviews*.

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#### DEATH FROM NEOSALVARSAN.

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Darier records two cases which occurred in young men aged respectively 31 and 28. The first was suffering from tertiary tuberculo- verrucose manifestations on upper extremities, but otherwise was in robust health; the other was a weakly individual in the secondary stage, with pronounced pulmonary tuberculosis and albuminuria. Both cases had already received courses of mercurial injections. The neosalvarsan was given intravenously to both patients according to Ehrlich's directions. The first case received on September 25 0.6 gramme, and on September 26 0.75 gramme, without toxic manifestations. On October 2 a third injection of 0.9 gramme was given, and on October 6, sixty-seven hours after the last injection, he died in convulsions, with a temperature of 103 deg. F. The other patient, after receiving successively on September 28, October 2 and 5, 0.45, 0.75, and 0.9

gramme of the drug, died in a similar manner on October 14, nine days after the last injection.

In a lengthy survey and discussion of these two cases and six others of a similar kind the author comes to the following important conclusions: (1) Neosalvarsan would appear to be more dangerous than salvarsan. (2) Neosalvarsan can produce very serious nervous symptoms, notably encephalomyelitis and progressive neuritis of an arsenical type. (3) Exceptionally it may cause death with symptoms of acute arsenical poisoning. (4) These catastrophes are caused apparently by retention of the drug, due to the inefficient or slow elimination, and at the present moment we have no criterion which can certainly enable us to prevent occasional accidents. It is obviously impossible to refuse administration to every case in which there would appear to be lesions of the kidney or liver. His advice is to begin treatment with small doses (a minimum of 0.2 or 0.3 gramme at first), and to increase the dosage by reasonable amounts, with minimal intervals of five or seven days, and to be sure that the preceding injection was not followed by any symptoms of intolerance; also to ascertain that the urinary excretion of arsenic is proceeding normally.—*British Medical Journal*.

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#### CONGENITAL OCCLUSION OF THE POST-NASAL ORIFICES, WITH REPORT OF CASE.

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Dr. Charles W. Richardson, Boston: In July, 1912, a case came under my observation in which there was complete osseous obstruction of the post-nasal orifices at as early a period in the life history of the patient as any observer has noted such a condition. In search of the literature I have found only a few cases in which the obstruction was observed in infancy. While it is not possible to tabulate all the cases recorded in the literature, I judge that they do not exceed one hundred. The obstruction of the post-nasal orifice may be membranous or osseous. The former are usually found posterior to the nasal cavities in the nasopharyngeal cavity, but lie in contact with the postnasal orifices so as to completely obstruct them, while the latter are usually placed within the



chamber, within a millimeter or more from the free border of the posterior nasal orifice. To these two forms may be added congenital atresias, by which the bones entering into the formation of the postnasal orifice become united, thus more or less completely obstructing the postnasal orifices.

The child that came under my observation in July, 1912, had marked difficulty in breathing. The child struggled for air, and the face became suffused and slightly cyanosed, the condition being relieved when the child began to cry. Whenever it ceased to cry there would be a recurrence of the difficult breathing. Examination demonstrated without doubt a deformity which was a complete obstruction of the postnasal orifices. By the end of the second week the child learned to maintain mouth breathing, and also learned to feed in a short time, and has developed in a normal manner. The question is: When is the proper time to operate? The marked success with this case seemed to favor the expectant surgical policy in these cases.—*Medical News*.

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#### ARTERIOSCLEROSIS AND ALLIED SUBJECTS.

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The three leading articles of this number are devoted to clinical and experimental arteriosclerosis and paroxysmal tachycardia. Hirsch opens with the pathogenesis and physics of arteriosclerosis. He brings the latter in direct connection with elasticity of the vessels. There is, however, much confusion as to what elasticity really is. It may be complete or incomplete. Normal arteries are completely elastic. The operation of the deforming forces tends to increase the deformity; and when these are withdrawn the *restitution ad integrum* does not at once take place. A certain amount of elasticity results as an after-effect, controlled perhaps in part by innervation. In arteries which are notably exhausted, or influenced by poisons, this secondary elasticity may constitute a grave menace. In early arteriosclerosis it is easy to note a lack of elasticity; but later on this is not at even expression of the disease, as numerous other factors may have developed—sclerosis, degeneration, calcification. Loeb considered experimental

arterial alterations on rabbits and dogs in which lactic acid was the agent employed. His work is still in progress, so that no conclusions are drawn, but the author claims that for the first time he has succeeded in producing arteriosclerosis in an animal other than man. He disputes the assertion of Boveri that arteriosclerosis may be caused in apes by injecting adrenalin. The author's rabbits did not develop the disease. In two dogs, however, in which the intima was attacked, a condition was produced very much like human arteriosclerosis. Dogs seldom develop the disease spontaneously, and even in very old dogs the findings in this respect are conflicting. Kaufmann and Popper, who consider the pathogenesis and treatment of paroxysmal tachycardia with alternations of arrhythmia and allorhythmia, were able to demonstrate this anomaly was due to Tawara's nodes by the use of the cardiosphygmograph. When arrhythmia coexisted it is due to a change in the point at which the cardiac contraction begins, and also to a certain degree of sinoauricular block. Large doses of physostigma plus strophanthus cause the cessation of the tachycardia, while the arrhythmia assumed another type (*a perpetua*). The latter type in turn is abolished by atrophin. These indications and prescriptions for their relief are worked out wholly by sphygmo- and electro-cardiograms.—*Medical Record*.

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## OBSTETRICAL

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### TREATMENT OF VAGINISMUS.

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Dr. H. Rothe advises the following plan in severe cases of vaginismus: The physician impresses upon patient that after he has dilated the vaginal opening under anesthesia, the subsequent treatment is entirely painless. To effect dilatation two fingers of the left hand are introduced into the vagina, and by the exercise of strong pressure the hymen and constrictor muscle of the vulva are gently ruptured on the left side, this being followed by introduction of a speculum of a diameter of 4 cm. On the follow-

ing day, though the wounded surface is painful, the symptoms of the vaginismus, that is, the spasm of the constrictor cunni and of the adductors of the thigh and the pelvic muscles, has disappeared. This, in itself, exerts a beneficial psychic influence. Following the suggestion of Olshausen, he introduced a pledget of cotton annointed with a 10 per cent cocain ointment into the vagina twice daily, allowing it to remain for ten minutes, and then inserts dilators of increasing size, which are left in for an hour at a time.—*International Journal of Surgery*.

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#### DYSTOCIA FROM VENTRAL FIXATION AND AMPUTATION OF THE CERVIX.

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I wish to report a case of dystocia from ventral fixation and amputation of the cervix. A woman, 38 years of age, who had had three children. She had suffered from procidentia and was operated on in New York by ventral fixation and a fairly high amputation of the cervix. She went through her pregnancy without pain or other symptoms until labor commenced. At the time of labor there was no advance, and after being in labor for six hours the head was in the pelvis and was boring its way through the anterior wall of the uterus. The os was of pinhole size. It seemed to be a case for operation if ever a case of dystocia required such assistance, and I did a vaginal hysterotomy and with forceps delivered an eight-pound baby. The cervical canal was left of sufficient size for drainage, and the result was satisfactory.—Dr. Humpstonne in *Long Island Medical Journal*.

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#### REPAIR OF PERINEUM.

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The author advocates immediate repair of the torn perineum. The procedure which has yielded most successful results in his hands has been as follows: The patient is placed on her back,



with the thighs flexed on the left abdomen and held in place with a suitable support like the Robb-Kelly strap. The vagina is cleansed of the clots and its upper part packed with sterile gauze or cotton, to make the field of operation as bloodless as possible. Then a good light is thrown into the vagina. As recommended by Robbins, the mucous membrane and submucous membrane and submucous fascia of the opposite side of the tear with a continuous chromicized catgut suture, which begins at the upper part of the tear in the vagina and is continued on down toward the vulva. Uniting the mucous membrane and fascia with a continuous running suture, the operator tries to match the part of one side to that from which it has been torn. This restores the shape of the vagina. After the vulva has been reached the suture and needle are laid in the vagina, to be used later to unite the skin with a continuous suture. If there happens to be another tear in the vaginal sulcus or median line, as is almost always the case after the use of forceps, that tear is similarly sewed with a continuous suture, and when the vulva is reached the suture is temporarily laid aside. Then the crown sutures of silkworm gut are put in from the skin surface, slanting downward, but the rectum should not be entered, as sometimes happen, unless one takes care to feel in the rectum with a gloved hand. It is well to put the wound well forward with the sutures before tying, to see that the perineum is well cared for; they are then tied. The catgut suture that was stopped at the opening of the vulva is then picked up and with a continuous suture the denuded surfaces are brought into apposition and the suture continued down the skin. If the rectum has been torn the sphincter may be caught and brought together by a silkworm-gut suture introduced in the skin just above the rectum, passing through the muscle and out at the other side through the skin. A similar suture just above the mucous membrane of the rectum, introduced from the skin, passing around the tear in the rectum, and coming out on the skin of the opposite side, will draw the mucous membrane down like a purse-string.—G. Baughman in *Journal of the Am. Med. Asso.*

PITUITARY EXTRACT IN OBSTETRICS.

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Harrison determined experimentally that pituitary extract is of great value in cases of weakness in uterine movements after the soft parts are well dilated. Failure in these cases is rare, probably less than 1 per cent. The later in labor, but before delivery, the more striking the effect. The danger to the child and mother is very slight. As an addition to some mechanical method, e. g., the Champetier de Ribes' bag, it is of great value in bringing on premature labor or abortion. In the former case it may be sufficient in itself, but there is some risk of tetanus of the cervix, or of the uterus, especially when repeated injections are required. For delivery of the placenta its use is accompanied by the danger of tetanus uteri and retention. In post-partum hemorrhage a considerable percentage of failures may be expected.—*The Journal of the American Med. Asso.*

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QUANTITY VERSUS QUALITY IN BABIES.

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Professor Karl Pearson, in a lecture not long ago at the London School of Economics and Political Science, drew attention to the falling of the birthrate in England which has taken place since 1878. He showed that the process was less rapid in places like Sheffield where men were chiefly employed, whereas in places like Dewsbury, where wool was the staple industry, it was more marked. In woolen areas the average number of children in families was 1.3, in cotton areas 1.8 and in engineering areas 2.12, the interpretation being that, except in the latter case, the families, and consequently the towns, were not reproducing themselves. Emigration from the rural districts could not continue, for their birth rates, too, were falling. The character of the population was tending to become more middle-aged, and if the population was to be replaced, average families of four and five were required—a point of vital importance to the nation, for no nation of forty millions could stand one of sixty millions. That was the political aspect. The suggestions had been made that the loss

might be made good by better care of the children, but by keeping the children alive it would not be possible to get the class of mentally and physically fit children that was desired. It had to be remembered that a fall in the infant death rate is accompanied by a rise in the percentage of delicate children, and vice versa.—*Medical Review of Reviews.*

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#### RECOVERY IN A CASE OF TETANUS NEONATORUM.

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Wolff states that the mortality of this affection varies from 70 to 95 per cent. We know that the latter is identical with ordinary tetanus, because if matter from the navel of children who are victims of this disease is injected into experiment animals tetanus results. When we consider that the dirty treatment of the navel of the newly born at the hands of mothers and midwives has caused most of the recorded cases in the past, the simple cleanliness of the present day must have greatly lowered the incidence of tetanus. Aside from prophylaxis not much progress has been made in life saving, even under the most modern plans of treatment. The author's case is as follows: A boy aged eleven days was brought to the clinic by his mother who stated that for the past two days he had suffered the most violent convulsions. The cord had sloughed at the eighth day, the stump having been dressed by the midwife. Pus soon appeared at the navel, and trismus had developed two days later. This very brief interval caused some doubts as to diagnosis despite the absoluteness of the clinical picture. In the interest of the child no attempt was made to excise a portion of the navel for microscopic study. According to precedent the chance of finding bacilli would have been small. Hence serum was at once injected, 300 units distributed in various places. As is well known, it is difficult to supply the caloric requirements of a young infant with tetanus. The patient was narcotized with bromides and chloral until it could be fed with milk by the stomach sound; these remedies also controlling the convulsions. At times the chloral was given in the milk. This treatment was kept up until the child was able to nurse. The milk



was obtained directly from the mother's breast. The disease ran a severe course, convulsions being of the most violent type and fever correspondingly high. The caloric plan of feeding was maintained and the author does not know whether to give the most credit to the serum, chloral, or soothing feeding.—*Medical Record*.

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#### FAILURE OF LACTATION.

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H. C. Cameron notes that it may be asked why the infant should be born before the flow of milk is established, and why it should be left to the child to secure a sufficient supply by its own exertions. He believes that one may see in this a very complete and successful provision against the danger of overfeeding the child. When the child has a good appetite, sucks well, and empties the breast completely the amount of milk secreted increases with each nursing. There is here a wonderful adaptation of supply and demand. It is true to say that the child grows in strength and size because there is an increasing flow of milk; it is equally true to say that more milk is secreted because the child grows in strength and power of suction. But let some accident diminish his appetite for a few days—some slight pyrexial disorder, for example, or a trifling dyspepsia—then with diminished suction less milk is secreted, and the infant involuntarily imposes upon himself a period of partial starvation.—*Medical Record*.

## Editorial

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PUBLISHER'S NOTICE—The Journal is published in monthly numbers of 48 pages at \$1.00 a year, to be always paid in advance.

All bills for advertisements to be paid quarterly, after the first insertion of the quarter.

Business communications, remittances by mail, either by money order, draft, or registered letter, should be addressed to the Business manager, C. S. Briggs, M. D., corner Summer and Union Streets, Nashville, Tenn.

All communications for the Journal, books for review, exchanges, etc., should be addressed to the Editor.

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### PROHIBITION.

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At last it seems that the State of Tennessee is to really have prohibition. Since 1909 the prohibition law has stood on the statute books but in the larger towns an uninformed visitor would never have suspected the solons of Tennessee had even debated such a question, much less have passed a law of state-wide prohibition. Since the beginning of its history Tennessee has never experienced such a period of lawlessness as during the past four years and this to a large extent has been due to the non-enforcement of the prohibition law.

We have never been in favor of prohibition, but since it is a law we deplore the fact that it has not been enforced and now, like the most fanatic anti-liquorite, we welcome the return of law, and trust that real prohibition will obtain.

We feel that sooner or later the law will be repealed and a saner law take its place. A law of segregation, local option and elimination of the stronger drinks like whiskey, absinthe and brandy. Also the elimination of the bar which is strictly an American institution; the substitution of tables and the individual check system which would help eliminate the treating custom which has a great deal to do with excessive drinking.

We feel that however stringent a prohibition law may be, it can not stop whiskey drinking but will force many who now

drink only beer to fall back on whiskey, because it can be smuggled in so much easier.

Beer is more a food and tonic than an intoxicant and comparatively few drunkards use this beverage. Any pathologist will tell you that it takes enormous daily quantities of beer to produce pathological changes in the vital organs of the body. The cost of wine makes its use prohibitive for many and with a higher tax to make its cost still greater few could indulge in this.

Prohibition has made great strides during the past thirty years but not through the prohibition party so much as through certain church organizations throughout the country. Elimination of stimulants would have been a much easier task had the work been more systematically mapped out. For instance, we have state-wide prohibition here in Tennessee and comparatively little attention is attracted by the flagrant sale of morphine and cocaine to say nothing of the use of heroin, which is becoming very popular.

Logically it would be wise to make the sale of narcotic drugs like opiates and cocaine a crime punishable by imprisonment unless such drugs were prescribed by a reputable physician. After obtaining and *enforcing* a law against narcotic drugs, absinthe, brandy, whiskey could have been prohibited, which would still have left wines and beers. If trial showed wines and beers alone cause the same liquor problems as when the stronger intoxicants were used, public opinion would have demanded a prohibition law against their sale also.

To ask too much at one time is a procedure which has never borne fruits in private or public life. And for that reason, while we hope that the prohibition law will really prohibit, we feel that it will do so only temporarily and that when beer can once again be bought and drank in a saloon many who formerly only took beer will call for whiskey, having acquired a taste for that habit forming drug while beer could not be purchased.

W. T. B.



ART IN ANATOMY.—MEDICINE.

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Many medical men will well remember at various times receiving a copy of Rembrandt's Celebrated School of Anatomy. It was the writer's good fortune recently to see the original of this in the museum of The Hague, Holland, while there to see Carnegie open his new Peace Palace. This wonderful painting was done by Rembrandt in 1632 for the Amsterdam Guild of Surgeons, to hang on the walls of their *synkamer* or dissecting room. This painting remained with the surgeons guild at Amsterdam until 1829, when it was purchased by William II for 32,000 florins. The strong point in this picture is its portraits. This picture has been described as the truest and most lifelike representation of the working of intellect ever put on canvas. Rembrandt always has a central figure and in this picture it is the celebrated anatomist, Rembrandt's friend, Prof. Nicholas Tulp. Around the professor is a group of seven men, not young students, but the learned surgeons of Amsterdam. The corpse which lays before the Professor most faithfully presents the peculiar hue of the dead body, doubtless it is as well, as the portraits were painted from nature. We might say the portraits were painted from life and the corpse was painted from death. This picture always had a crowd before it in silent and respectful admiration. Rembrandt has other anatomical pictures at Amsterdam, chief of which is the Anatomical Lecture, showing a prosection of the brain.

*E. S. McK.*

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THE BRITISH ASSOCIATION FOR THE ADVANCEMENT  
OF SCIENCE.

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The British Association for the Advancement of Science, held its Annual meeting at Birmingham, England, September 10-17, 1913. The writer being a member made haste to be there, as he was in England after the International Medical Congress. The meeting was a success, numerically, scientifically and socially. There were present 3536 members. These came mostly from

England, yet about all the colonies were represented, a few from America and some visitors from the continental nations. The degree of LL.D. was conferred on Mme Curie, of Paris, R. W. Wood, Baltimore; Savante Arrhenius, Stockholm; H. A. Lorentz, Leydon, and Keibel, of Freiburg. Mme Curie, the discoverer of radium, was described by Sir Oliver Lodge, principal of the University and president of the association, in conferring the degree, as "the greatest woman scientist of all time." She received the most applause of all and seemed quite a favorite with the audience. Of the twelve sections into which the association was divided, those of chemistry, botany and physiology were of interest to the medical man with reference to his profession. The writer was present at the meeting of the British Association at Winnipeg four years ago and well remembers the valuable reports and discussions of the subject of "Anæsthesia" at that time and place. These reports and discussions with exhaustive investigations have been going on ever since, and the report this year was none the less valuable than former years. The sections worked forenoons and played afternoons and evenings. It was rarely that papers were read in the afternoon. There were some popular lectures and special addresses and the president's address, made in the evening, but not the regular section work. The British Association knows how to enjoy itself as well as to work. The meeting will be held in Australia next year.

*E. S. McK.*

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Messrs Rebman, Publishers, take pleasure in informing the profession that the International Medical Congress, held during the first week in August, 1913, has awarded to them the Gold Medal for the best medical publications.—New York City, August 28, 1913; 141-145 W. 36th St., Herald Square Building.

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OBITUARY.

We note the death at Franklin, Tenn., of Dr. Samuel Henderson, September 15, one of the best known practitioners of medicine in that community. He died after a brief illness in the sixty-second year of his age. Dr. Henderson was much beloved by his people and his death will be widely mourned.

Dr. Jas. E. Cage, of Carmel, Tenn., died at his home from the infirmities of old age at the age of 76 years. Dr. Cage was a Confederate soldier, serving throughout the war, and after the war he took up the practice of medicine and for nearly half a century was one of the leading practitioners in the section in which he lived. His death was peculiarly sad as it took place at the time for which a family reunion had been appointed.

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## THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

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### PRELIMINARY PROGRAM AND CIRCULAR OF INFORMATION OF THE THIRTY-NINTH ANNUAL MEETING AT NEW ORLEANS, LA.

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Secretary's Office, 705 South Third Street.

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Louisville, Ky., October, 1913.

The Mississippi Valley Medical Association meeting will be held at the Hotel Grunewald, New Orleans, La., Thursday, Friday and Saturday, October 23, 24, 25, 1913, under the Presidency of Dr. Albert E. Sterne of Indianapolis, Ind.

The arrangement for the meeting are in charge of a committee headed by Dr. W. W. Butterworth. Information in regard to accommodations should be addressed to Dr. M. A. Shlenker, New Orleans, Chairman of the Hotel Committee.

The meetings of the Association have always been made more pleasant because of the number of ladies present. It is hoped a large number will attend this year. The local committee promise much of interest for them.

#### RAILROAD RATES.

Advantage can be taken for this meeting of the regular round-trip home-seekers' rates to southern territory which are practically one fare for the round trip. These tickets are on sale *only on*



*Tuesday, October 21.* A saving can be made in the tickets if it is not convenient to leave on the 21st, by purchasing a round-trip winter tourist ticket.

#### HEADQUARTERS.

The Hotel Grunewald has been selected as headquarters, and all general meetings and both medical and surgical sections will be held on the top floor. The commercial exhibits will also be on this floor. Members and visitors are urged to make reservation of rooms as early as possible.

#### PANAMA TRIP.

A contract has been entered into with the Travel Service Bureau of St. Louis for the trip to Panama, and details of the cost and extent of the trip will be sent on request.

#### SESSION IN DETAIL.

The Association will be called to order by the Chairman of the Committee on Arrangements, Dr. W. W. Butterworth, at 10 a.m., October 23, and the opening exercises held. At the conclusion of these the general session will adjourn to the two sections, meeting in different halls.

The first evening in the main hall will be heard the address of the President, Dr. Sterne, and the orations in medicine and surgery. Dr. Henry B. Favill of Chicago, will deliver the oration in medicine and Dr. Wm. L. Rodman of Philadelphia, the address in surgery. Dr. Jno. A. Witherspoon of Nashville, will deliver the memorial address.

The symposia and the papers in general will be replete with interest.

Details of the forms of entertainment have not been completed, but will be announced in the final program.

#### SCIENTIFIC PROGRAM.

*NOTE—All papers read at the meeting in full, in abstract, or by title are the property of the Association, and can not be published except in the official manner, without permission.*

The following is a list of papers completed to August 15:

SYMPOSIUM ON PEDIATRICS.

Abt, I. A., Chicago Ill.—Classification of Gastro-Intestinal Diseases of Infancy.

Neff, Frank C., Kansas City, Mo.—The Feeding of the Sick Infant.

Richter, H. M., Chicago, Ill.—Pyloric Stenosis in Infancy; an analysis of twenty cases personally operated upon.

Sedwick, Julius H., Minneapolis, Minn.—Researches in the Chemistry and Metabolism of Digestion.

Snyder, J. Ross, Birmingham, Ala.—Some Points in the Treatment of Acute Ileo-Colitis.

Discussion opened by W. W. Butterworth, I. R. DuBuys, New Orleans, La.

SYMPOSIUM ON THE KIDNEY.

Bogges, W. F., Louisville, Ky.—Medical Treatment of Bright's Disease.

Fisher, Martin H., Cincinnati, Ohio—The Nature, Cause and Principles of Treatment in Nephritis.

Dodd, Walter, Boston—X-ray in Kidney Lesions.

Eisendrath, Daniel N., Chicago, Ill.—The Pathological and Clinical Aspects of Renal Infection.

Fowler, O. S., Denver, Colo.—

Squier, J. Bentley, New York, N. Y.—

Scheick, Henry J., St. Louis, Mo.—Some Phases of Kidney Surgery.

Wishard, W. N., Indianapolis, Ind.—

Discussion opened by John R. Caulk, St. Louis, Mo.

SYMPOSIUM ON SOCIAL HYGIENE.

Norbury, Frank P., Springfield, Ill.—Social Factors in the Prevention of Insanity.

Trawick, John D., Louisville, Ky.—Heredity and Eugenics.

Yarros, R. S., Chicago, Ill.—Various Aspects of the Social Hygiene Movement.

## SYMPOSIUM—GENERAL SESSION.

Vaughan, Victor C., Ann Arbor, Mich.—The Relation of Anaphylaxis to Immunity and Disease.

Weil, Richard, New York, N. Y.—The Result of the Study of Various Theories of the Anaphylactic.

Loeb, Leo, St. Louis, Mo.—Some Recent Results of Cancer Investigation.

Watkinns, T. J., Chicago, Ill.—Ovarian Secretions.

Discussion opened by G. W. McCaskey, Ft. Wayne, Ind.

## SYMPOSIUM ON THE CIRCULATION AND BLOOD PRESSURE.

Yates, J. L., Milwaukee, Wis.—Surgical Aspect.

Marvin, J. B., Louisville, Ky.—Disorders of the Peripheral Circulation.

Stone, Willard J., Toledo, Ohio—The Clinical Significance of Diastolic Pressure Variations with Especial Reference to Hypertension and Cardiac Over-load.

Williamson, Charles Spencer, Chicago, Ill. — The Functional Testing of the Cardiac Power.

Butler, Geo. F., Kramer, Ind.—Blood Pressure and Cardio-vascular—Disturbances.

Barclay, W. F., Pittsburg, Pa.—Rheumatism, Its Etiology, Pathology and Treatment in a Study of over Three Hundred Recorded Cases.

Babcock, Robert H., Chicago, Ill.—Endocarditis with specimen.

Barrett, Channing W., Chicago, Ill. — Some New Points in Round Ligament Surgery. With Lantern Slide Illustration.

Benjamin, A. E., Minneapolis, Minn.—Thyroid Surgery with Special Reference to the Technic.

Bierring, Walter L., Des Moines, Ia.—Embolism and Thrombosis; A series of unusual circulatory accidents occurring in acute infections.

Burr, C. B., Flint, Mich.—On Symbolism and Word Obsession.

Byrd, Hiram, Jacksonville, Fla.—Tuberculosis in the Mississippi Valley.



Eastman, Joseph Rilus, Indianapolis, Ind.—Jackson's Membrane in Children.

Crile, George W., Cleveland, Ohio—

Dock, George, St. Louis, Mo.—

Elliott, Arthur R., Chicago, Ill.

Emerson, Charles B., Indianapolis, Ind.—Diabetes.

Eve, Duncan, Nashville, Tenn.—Treatment of Recent Fractures of the Femur.

Frank, Louis, Louisville, Ky.—Recognition of Renal Calculus.

Frazier, Charles H., Philadelphia, Pa.—

Glenn, Eugene B., Asheville, N. C.—

Haggard, W. D., Nashville, Tenn.—Is it Ulcer of the Stomach or Gallstone?

Haines, W. D., Cincinnati, Ohio—Pancreatitis as a Factor in Digestive Disorders.

Hanes, Granville S., Louisville, Ky.—Urgent Need for a More Thorough Study of Disease Affecting the Region of the Rectum.

Jackson, Jabez N., Kansas City, Mo.—

Johnson, J. H., Coffeyville, Kas.—The Medical Treatment of Goiter.

McRae, Floyd W., Atlanta, Ga.—The Acute Surgical Abdomen—Abuse of Purgatives.

Minor, C. L., Asheville, N. C.—The Use and Abuse of Exercise and Rest in the Treatment of Pulmonary Tuberculosis.

Ochsner, A. J., Chicago, Ill.

Plummer, H. S., Rochester, Minn.—Classification and Diagnosis of Goiter.

Pottenger, F. M., Monrovia, Cal.—The Possibility of Differentiating Between Active Quiescent and Healed Tuberculosis by the Character of the Reaction to the Cutaneous Tuberculin Test.

Ruth, C. E., Des Moines, Ia.—Extrophy of the Bladder, with Case Reports.

Schwab, Sidney I., St. Louis, Mo.—

Smithies, Frank, Rochester, Minn.—Test-meal Findings in 700 Cases of Cancer of the Stomach.

Sloan, H. G., Cleveland, Ohio—The Resuscitating Influence of Adrenalin and Normal Saline Solution.

Weissenberg, Theodore, Philadelphia, Pa.

Windell, J. T., Louisville, Ky.—Anent the Socalled “Whitie-slave” Law.

The following will lead in discussion of papers to be announced later :

Leathers, W. S., University, Miss.

Genella, L. J., New Orleans, La.

Fuller, William, Chicago, Ill.

Dunlap, Elbert, Dallas, Texas.

Ward, J. P., Vevay, Ind.

Murphy, John B., Chicago, Ill.

## Reviews and Book Notices

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Malaria, Etiology, Pathology, Diagnosis, Prophylaxis and Treatment—By Graham E. Hendon, M.D., Member American Medical Association, Southern Medical Association, American Society of Tropical Medicine, Medical Reserve Corps, United States Army (Non-active List). With an Introduction by Charles C. Bass, M.D., Professor of Experimental Medicine, Medical Department Tulane University, New Orleans; 27 illustrations. St. Louis. C. V. Mosby Co. 1913.

This admirable brochure should be very acceptable to the general practitioner as it presents a very important subject in a thoroughly practical manner. When one reflects that the successful issue of the Panama Canal, the greatest engineering project of modern times, was due in great measure to scientific sanitation looking to the eradication of malarial diseases, and the prevention and cure of that and other tropical diseases, he can readily appreciate the value of a work that presents the subject in all its phases in the most practical and scientific manner. We can conscientiously commend the book to our readers as a most valuable handbook in the study of malarial diseases

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The Surgical Clinics of John B. Murphy, M.D., at Mercy Hospital, Chicago. Vol. II, No. 4 (August, 1913). Octavo of 206 pages, 49 illustrations. Philadelphia and London: W. B. Saunders Co., 1913. Published Bi-Monthly. Price per year: Paper, \$8.00; Cloth, \$12.00. W. B. Saunders Co., Philadelphia and London.

Our thanks are due the enterprising publishers for a copy of the August number of this excellent publication. As with former numbers this volume abounds with interesting lectures. The opening article is one by Philip H. Kreuscher, M.D., of Dr. Murphy's clinic, on "Some Observations on Vaccine and Serum Therapy from Dr. Murphy's Clinic," which gives a reader many valuable points in the study of this progressive branch of modern therapeutics. A feature of note in this number is ten skiagrams of the blood supply in and around the joints, a most excellent method of demonstrating the blood supply of joints and collateral



circulation. The other papers of this number are one and all valuable as so many steps in the development and advance of surgical procedures. The thanks of the profession are due the distinguished surgeon and the up-to-date publishers for having presented a serial of such exceeding value to all interested in scientific surgery.

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The Doctor in Court—By Edwin Valentine Mitchell, LL.B., of the Massachusetts Bar. New York. Rebman Co., Herald Square Building.

This will prove to be a useful little book for physicians as occasionally it is his misfortune to be called as a witness in the various courts of the land. It gives "briefly and in high relief the general principles of law relating to the medical profession and the reasons for those principles." To give the reader an idea of the scope of the book, we give the contents: (I) Professional Evidence. (II) The Contract of the Profession. (III) Civil Responsibility of the Profession. (IV) Remuneration. (V) Confidential Communications. (VI) The Criminal Responsibility of the Profession. (VII) Qualifications. Table of Contents. General Index.

## Publisher's Department

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*"Elixir Saloform Comp., Flexner."*—Contains 20% alcohol. An efficient remedy for rheumatism, gout, cystitis and uric acid solvent. Prepared for physicians' prescriptions only. Robinson-Pettet Co., incorporated. (See advertisement in this issue.)

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"The experiment of Drs. Charteris and Lathan prove that the presence of ortho- and para-creosotic acids as impurities in artificial salicylic acid cause intense gastric irritation and depression of the heart; furthermore, since artificial salicylic acid and its derivatives are eliminated in the urine they are destructive to the kidneys and should therefore never be employed for internal administration. None of these objections apply to salicylic acid from natural sources."

Attention is called to the fact that all the salicylic acid in the Tongaline Preparations is made from natural sources.

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### SAFE ANTISEPTIC IN GONORRHEA.

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Tincture of iodine irrigations in solution of from one to four drachms to a quart of hot water is said to be one of the safest and best antiseptics that can be used in gonorrhea. The strength of the solution and number of irrigations a day depends upon the stage of the disease. To keep the urine bland and non-irritating sammetto should be administered in teaspoonful doses three or four times daily throughout the treatment. In cases of extreme acidity of the urine one of the potassium salts will be found helpful.

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CHARLES S. BRIGGS, A. M., M. D., Editor

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## Original Communications

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### PRINCIPLES AND METHODS FOR PUPILLARY EXAMINATION IN DAILY PRACTICE.\*

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BY DR. OTTO SCHIRMER.

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(Translated from the New York Medizinische Monatsschrift,  
by W. T. Briggs, M.D., Nashville, Tenn.)

In order to perfectly understand certain pathological phenomena it seems to me absolutely necessary to make a study of the scientific basis of pupillary examination. Therefore I intend to commence with a few remarks on the anatomy and physiology of pupillary reaction. Today, however, I will confine myself to remarks on the reaction to light and the convergence reaction.

Reaction to light is a reflex phenomena. The centripetal part of the reflex arc begins in the retina. It is generally understood that it begins in the rods and cones. This, however, has not been proven. I myself have for fifteen years made tests in regard to the physiology of this, working on the hypothesis that just as there are special efferent nerves so also are there special receiving organs concerned in the pupillary reflex, that these organs were to be found in the deeper portions of the retina; to be more exact, in the so-called parareticular cells.

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Read before the Deutschen Medizinischen Gesellschaft der Stadt, New York, May 5, 1913.



Since Gudden made his experiments we know perfectly well that the pupillary reflex is not caused by fibres in the optic nerve but in special centripetal nerve fibres. These fibres controlling pupillary reaction partially decussate as they enter the chiasm and then pass still further in; however, not as far as the primary optic ganglia, on the contrary they leave the tract in order to go directly to the pupillary centre. This arrangement is very important, since it enables us to understand blindness in which the pupillary reflex remains undisturbed. Especially important is this arrangement when we wish to locate the lesion in hemianopsia. For instance, if we find a hemianoptic pupillary reaction we locate the lesion in the tract; if, however, the reflex remains undisturbed we know the lesion is in the primary optic ganglia or involves the cortex of the brain.

The pupillary centre is in the nucleus of the oculomotor nerve. It is close beside the nucleus from which the nerve fibres to the sphincter run, which nucleus, according to the researches of Bernheimer, is the small celled, unpaired median nucleus. The centrifugal fibres of the reflex arc run in the oculomotor nerve. They enter the ciliary ganglion, where they spread out in terminal arborizations which surround the ganglion cells. From the latter run the axis cylinders which make up the posterior ciliary nerves and which end in the sphincter.

This description explains how the pupillary reflex depends on the action of only one muscle, the sphincter; the other muscle, the dilatator iridis, has nothing to do with this action.

The convergence reaction is not a reflex phenomena but an association movement. With every convergent movement of the eyes and with each movement of accommodation the pupils contract simultaneously. There has been a controversy as to whether the convergence or accommodation was the more responsible for this. My own opinion is that this question is not to be answered, because the question itself is wrong. It is not at all a question of a separate and distinct innervation of these centres with which our voluntary effort has nothing to do. It is much more a question of a controlling centre, the convergence centre. The nuclei of the nerves to the rectus internus, the accommodation muscle,

and the sphincter, are under control of this centre and thus it happens that at every convergence these three muscles act together.

With the above data the physiology of the pupillary reflex can be understood without further explanation.

Because of the semidecussation of the fibres concerned in pupillary reflex action, it happens that both pupils must always be equally dilated, and that, too, even when one eye is exposed to light while the other is in darkness or when one eye sees while the other is blind. This, however, holds only for routine work. With more exact examination we find that the pupil exposed to light, or the pupil of the good eye—the other being blind—is  $\frac{1}{4}$  to  $\frac{1}{2}$  mm more contracted.

In order to estimate the dilatation of the pupils, which varies with every change of light, we must observe the physiological law. This law, which I discovered fifteen years ago, is as follows: The dilatation of the pupil is dependent on the ratio of the absolute degree of light to the adaptability of the eye. Adaptation—not to be confused with accommodation—is the ability of the eye to adapt itself so perfectly to different degrees of light that its function is thereby in no way impaired. It depends, so far as we know, on chemical changes in the retina, not on the change of pigment from one part to another brought about by the entrance of light. This adaptation influences the width of the pupil exactly in proportion to the brightness of the light. The same degree of light will at one time cause the pupil to contract and at another time dilate according to the adaptability of the eye. This law holds for all degrees of light from fifty to a thousand meterkerzen (a meterkerze is the brightness of a candle at one meter distance).

These different widths of the pupil in fully adapted eyes, which I have called physiological, shall form the basis of our measurements. Examination of the eye with other illumination, especially strongly reduced illumination, yields very uncertain results. With such a method the individual difference in the rigidity of the iris plays too important a role. The dilatation of the pupils amounts to between  $2\frac{1}{2}$  and 4 mm.

Here the examination is conducted in the following way: We place the patient opposite a window and allow him two minutes for adaptation. This illumination is quite sufficient for practical purposes, since an illumination of from fifty to a thousand meterkerzen always prevails near a window on cloudy as well as bright days. Inspection will show whether the dilatation is normal. Finally, one can use the pupillometer of Haab (a row of black dots of different sizes) for measurement. Whatever is under  $2\frac{3}{4}$  or over 4 mm. is pathological. If the pupils are of different sizes it is not necessarily pathological. A congenital difference is not a rare condition. This difference never amounts to more than 1 mm., does not vary during life and does not influence the pupillary reaction. Greater differences in the pupils always points to a disease of the centrifugal fibres, provided there is no disease of the eye itself. However, a disease of the sympathetic system can not produce this difference. Its diagnosis could hardly ever offer any difficulty, since pupillary changes are never the only symptoms of sympathetic disease, on the contrary we find other signs, such as differences in the palpebral openings, in the secretion of sweat or in the dilatation of the blood vessels on the affected side.

In order to locate lesions in the centripetal fibres we must examine each eye separately while the other eye is covered. In such a case the pupil on the affected side will show a pathological dilatation. We can make good use of these methods; for example, in differentiating a hysterical amaurosis from a blindness due to optic neuritis. The recognition of the latter might prove difficult, as for instance in a very nervous young woman in the very first stages of multiple sclerosis. With an organic lesion of this type, if we make the single eye examination, we find the pupil widely dilated, whereas, in hysterical amaurosis, the pupil is not affected.

Normally, the pupil is round. Often of late has our attention been called to the fact that in tabes the pupil is not round. According to my experience it is true that such variations occur very often in tabetics, but only when the accompanying Argyll-Robertson sign is present; without the latter sign variations do not occur oftener nor are they more pronounced than in normal in-



dividuals. Therein the significance of the sign in the diagnosis of tabes is diminished.

The pupillary reflex is examined to the best advantage in a darkened room. It is more pronounced and easier to see. You have the patient look directly forward and illuminate the eye with different degrees of light from the side with a powerful convex lense. There are great variations in the degree of reflex action. Nevertheless you must not think there is a lesion somewhere in the reflex arc simply because the reaction is weak, if there are no other symptoms. The reaction is especially apt to be diminished in the elderly in whom the iris fibres are rigid. If the reaction is absent in one eye then we are able, by the consensual reaction, to locate the lesion in the centripetal or centrifugal fibres as the case may be. If the reaction is absent, regardless of whether the eye is in shade or illuminated, we have a lesion in the centrifugal fibres. If on the other hand reaction occurs in the other eye, then we know the centripetal fibres are affected.

In order to obtain the convergence reaction, I have the patient look in the distance whereupon both convergence and accommodation are relaxed. Then I hold my finger about 10 cm. before his face between the two eyes and tell him to look at my finger. There should be a contraction which is usually prompt and pronounced. This is very striking, especially in the very greatly contracted pupils of tabetics with the Argyll-Robertson pupil. You often think that the pupils are so contracted that further contraction is impossible and yet on convergence a prompt and pronounced contraction occurs.

## Selected Articles

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### SURGICAL EFFICIENCY.

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BY J. F. BALDWIN, A.M., M.D., Surgeon to Grant  
Hospital, etc., Columbus, Ohio.

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Efficiency is defined by Webster as "economic productivity;" when applied to a machine, human or otherwise, it is "the ratio of the work secured from the machine to the energy put into it." A few years ago Frederick W. Taylor made a scientific study of human efficiency as applied to the mere manual labor of carrying pig iron. He found that a day's work of a muscular laborer consisted in carrying eleven and a half tons of pig iron. By studying the lost motions which were made, and the unnecessary efforts which were put forth, he found that with no more work, and with no more exhaustion at the end of the day's work, the man would carry forty-seven tons a day. In other words, his efficiency has been increased more than 400 per cent.

A little later Gilbreth made a study of the laying of brick. We know that brick have been laid since at least 2,000 years before the birth of Christ. Gilbreth found that 120 bricks per hour was the practical limit of the bricklayer. By studying lost motion and unnecessary effort, he demonstrated that this same bricklayer by no more effort, and with no more exhaustion at the end of the day's work, could easily lay 350 bricks per hour; an increase of 300 per cent. Through forty centuries the bricklayers had made no effort to discover the laws of efficiency.

The study of fatigue as a diseased condition of the body has been undertaken only recently. Ranke was the first to perform notable fatigue experiments. He took an extract from a frog's muscle, that had been exercised until exhausted, and injected it into the blood vessels of a frog that had been at rest. The muscles of the second frog immediately showed great feebleness in contracting. In other words, the frog was thoroughly fatigued.

Some sort of toxin had evidently been passed from the one animal to the other. He then showed that if the exhausted muscle of the frog were washed out by salt solution sent through its vessels, the toxin was removed, and the power of contraction was at once restored.

Ranke's studies have been continued, and now the literature of fatigue is quite voluminous. "It is now customary," says Professor Lee, of Columbia University, "to recognize three distinct metabolic products as fatiguing, namely, sarcolactic acid, monopotassium phosphate, and carbon dioxide." During active labor the glycogen of the muscle cell becomes consumed, and in the consumption is converted into waste products which are toxic, and this accumulation of toxic waste is the poisonous factor in the production of fatigue. A tired man is therefore a poisoned man, and it has been demonstrated that an animal that drops dead in flight, succumbs not to heart failure but to poison, and decomposition occurs under such circumstances with startling rapidity. Not only do muscle cells take part in this process, but also the nerve cells which are brought into activity in the process of the labor.

In the laboratory experiments the muscle can be freed of this toxic product by washing with salt solution as previously stated, but in life this product is eliminated and the glycogen restored only by a period of rest, and if the intervals of rest are properly apportioned the muscle itself could labor on continuously. It was this alternate rest and work that enabled the laborer to carry in a day four times as much pig iron as he had carried before.

For many years organized labor fought to secure by gradual reduction, an eight hour day. This reduction, except with a corresponding reduction in wages, was bitterly fought by employers; and yet recent investigations very carefully conducted have shown that in work requiring particularly muscular exertion, the laborer can do in eight hours a little more work than he previously did in nine. Indeed, at Liege, Belgium, in the sulphuric acid works, the original system was a twenty-four hour shift. Each man worked twenty-four hours, then rested twenty-four hours, during which interval he frequently got drunk. This system was aban-



cloned and a twelve-hour shift introduced. A little later this was changed to three shifts of eight hours each, and a few months after, when the workmen had become adjusted to these conditions, careful experiments were made by Mr. Fromont, the manager of the plant, and his report then confirmed by Professor Mahaim, of the University of Liege. This report showed that in the eight-hour day, representing seven and a half hours of actual work, the same workmen, at the same ovens, with the same implements, and with the same raw materials, produced as much as previously in twelve hours, representing ten hours of actual work. By thus having three shifts of men instead of two, the income on the capital invested in the plant was increased 50 per cent.

Mahr and Platt, owners of the Salford Iron Works, at Manchester, England, voluntarily reduced as an experiment their work weeks from 53 hours to 48. At the end of their first year they found that their output per week per man had been increased. Acting on this discovery, the British Government reduced its work per week to 48 hours for 43,000 of its own employes. Says Dr. Mather: "We seem to have been working in harmony with the natural law instead of against it. The most economical production seems to be obtained by employing men only so long as they are at their best. When this stage has passed there is no true economy in their continued work."

This change for the better is also shown in another way. Under the twelve-hour work day the sick benefit paid out from the Mutual Sickness Insurance Fund exceeded the receipts, and there was an annual deficit. Under the eight-hour system the fund became solvent with a balance in the treasury.

Mr. William Crawford, of Buffalo, president of a company making monuments, according to his testimony before a committee of the House of Representatives, stated that for thirty-two years they had been keeping a careful cost-record of each piece of work. They had a ten-hour day when they commenced keeping this record. This was reduced to nine hours, and they found that under the same identical conditions the same man accomplished more work in nine hours than he had previously done in ten, and later when the hours were reduced to eight, this same

man accomplished still more in an eight-hour day than he had done in a nine-hour day. He then suggests, after watching his men, that a good granite cutter, who will use his brains as well as his hands, can do just as much work in seven hours as in eight.

Many other lines of industry have made similar reports, the least increase, as would naturally be expected, being found in those industries in which the muscular labor is of the least exhausting type.

A surgical operation is in a sense as much a mechanical procedure as loading a ton of pig iron, or building a brick wall. The surgeon does not become "fatigued" in the same sense as does the day laborer, but his fatigue comes from exhaustion of the nerve cells, though, of course, after several hours of hard work he may suffer from real muscular fatigue as well; hence the importance with him, as with the laborer carrying pig iron, of securing rest between operations when that is possible. The tired surgeon is not apt to be at his best in efficiency.

A story is going the rounds to the effect that one of these efficiency experts recently watched a surgical operation conducted by one of the best known Baltimore surgeons. At the completion of the operation he was asked what he thought of the procedure, and his reply was that if the surgeon were in his employ as a mechanic he would not hold his job a week. A hundred times, the expert said, he had picked up an instrument and laid it down without using it. Here were a hundred false motions, with nothing accomplished, and with a distinct loss of time and muscular effort.

That most surgeons who take from one to three or four hours to make an abdominal operation consume most of this time because of mechanical inefficiency, is probably a pretty safe statement to make. An ordinary supra-vaginal hysterectomy with removal of the appendages, and implantation into the stump of the ligaments, with careful overcasting of the peritoneum, removal of the appendix, and examination of the other abdominal viscera, should not consume more than thirty or thirty-five minutes, and a large part of that time would be consumed in careful closure of the abdomen. An ordinary operation for the removal of the

appendix, when the operation is made in the interval or in the early stages of an acute attack, should not consume over ten minutes. Plastic operations, requiring careful adjustment and the introduction of many stitches, will necessarily take more time, but even those operations should not be particularly tedious.

The inefficient operator is apt to make his abdominal incision very cautiously, and with short cuts—about as he learned to do his work in the dissecting room. Each little bleeding point is seized with a hemostat, and he probably takes time to apply a ligature. Such an operator usually takes ten to fifteen minutes to open the abdomen. He then commences his intra-abdominal work. He separates a few adhesions at one point, then jumps over to the other side, does a little work there, and then back again; and so back and forth, and here and there, he fritters away many precious moments. Here, as on the outside, every bit of tissue is carefully caught with hemostats and ligatures used. Such an operator is very apt to have his ligatures cut by the nurse two or three times too long. The long ends are in his way, snarl on his fingers, and require a number of additional movements to secure satisfactory ligation. (If one will watch a seamstress at her work he will notice that she uses a short thread, since she has learned that it takes less time to thread additional needles than it does to carry her hand holding the needle so far away from her work.) The operation having been finally completed in this haphazard way, the incision is closed. Usually the operator will be more systematic in his closure of the incision than elsewhere, but even here there are apt to be very many false motions.

On the contrary, the efficient surgeon makes no false motions. He has developed a certain system about each operation, and he proceeds in an orderly manner, commencing at one point and completing his work there before he goes to another. Every motion counts. He never makes two snips with the scissors if one snip will do. With a sponge in his fingers he pushes off extensive adhesions instead of dissecting them loose with many snips of his scissors. One broad sweep separates the parts widely, and with a minimum of traumatism and hemorrhage. He does not



deem it wise during his operation to talk with visitors, or to discuss the pathology of the case, or to seek advice as to treatment from his assistants, or, as I have known in some instances, from the nurses. Little oozing points are ignored entirely, unless the case is one in which it is of prime importance to conserve bleeding, or are caught for a minute or two with a hemostat. No ligatures are applied, as a rule, except to vessels that are large enough to have a local habitation and a name. A rapid survey is made of the entire abdomen to see if there are any other pathological processes going on, and the incision is then closed systematically and rapidly, so as to secure firm apposition of the incised tissues.

In ligating a vessel the ligature should be no longer than enables the operator to secure a firm hold. After making a tight, firm turn, tension should be maintained on the ends while the second turn of the reef knot is being made, and this tension should still be maintained until this second turn is firmly in place. If this is done there will be no loosening of the ligature, and there is no necessity of a third knot if ordinary suture material is used. It occasionally happens that after the first turn is made a bit of tissue drops over the ligature. In that case it will usually be better to bring the second turn down without stopping to get this tissue out of the way, and then a third turn should be made so as to have a complete reef knot. If tension is not maintained upon the ends of the ligature while making the second turn, there is apt to be a little slipping of the first turn, and hence a loose ligature, with secondary hemorrhage.

I have spoken above of unnecessary ligatures. This reminds me that in all the textbooks on abdominal surgery with which I am familiar, in both illustration and text, the writer directs us, in making an abdominal hysterectomy, to carefully ligate or clamp the round ligaments before cutting it from the uterus. Dr. Lee's *Obstetrics*, which is the latest publication along these lines, gives us these same directions. As a matter of fact, however, the artery in the round ligament runs from the uterus, and all the bleeding that comes when that is severed comes from the stump attached to the uterus. I have made thousands of hysterectomies, but in cutting down along the side of the uterus I cut through the

round ligament with absolute impunity. It never bleeds beyond a few drops of venous blood which occasionally escape immediately after the cutting. I have been calling attention to this in my clinical work for a good many years. It seems curious that the blunder should be transmitted from textbook to textbook.

Prompt recognition of certain surgical conditions, with advice as to equally prompt intervention, is characteristic of efficient surgery. An osteo-myelitis that is recognized at the onset and at once opened and drained, produces a minimum of destruction; but in some of these cases the entire shaft of the bone may be destroyed in forty-eight or seventy-two hours. To be sure, these cases are almost invariably seen at the outset by the physician rather than the surgeon, and I am sorry to say that nearly all of them are treated for several days, and sometimes for several weeks as "rheumatism," with the administration of salicylates internally, and with local applications according to the whims of the attending physician. I have known of several instances, however, in which men posing as surgeons have made the same blunder. The mistake should not be made. The sudden onset of symptoms, the severe chill, high temperature, great pain, and the fact that the trouble is not in the joint but simply close to it, ought to enable the diagnosis to be arrived at promptly, and proper treatment instituted with equal promptness.

An acute salpingitis, whether due to the infection of Neisser, or the result of an abortion or careless curetting, should also be recognized promptly and treated with equal promptness. We know that in an uncertain number of cases a Neisserian infection, or one of the other infections, may subside, leaving the tubes patent and functioning; but those cases are the exception. Sterility nearly always follows, while in a large proportion of cases neglected, treatment results in tubo-ovarian abscesses requiring ultimately removal of all the appendages. Early operation will remove the disease before the ovaries are involved, and thus save the ovaries and at the same time greatly diminish the morbidity, without, in my judgment, any increase, but rather a diminution, in mortality.

A number of years ago an Eastern gynecologist wrote an article in which he advocated treating all of those cases by rest until the acute symptoms subsided, and then operating two or three months later, when there was an entire absence of febrile reaction. He claimed that this treatment resulted in a greatly diminished mortality. His statements were extensively copied, and are now contained in very many of our textbooks. The teaching, however, I regard as entirely erroneous. I followed that teaching for a while, until satisfied that I was making a mistake, and then changed to prompt intervention, with greatly improved results. Early operation gives us no adhesions, or if any, very light, the tubes are readily removed and the ovaries are saved. A smear of pus is frequently present which can be wiped off, and the surface treated with dilute iodine; then to keep the intestines out of the cul-de-sac a gauze fluff can be introduced to be removed through a vaginal opening, and thus the field is protected and healing takes place promptly. This use of the fluff, both for its mechanical effect, and incidentally for drainage, I advised in a paper read before the American Association of Obstetricians and Gynecologists, in 1909.

Tincture of iodine, I think, should be used pretty freely in treating abdominal conditions in which infection is present. Two or three years ago, a writer, who had had a case of post-operative ileus, reported his case as one in which the ileus was due in his judgment to the use of iodine which had been applied on the skin, and which in some way he thought had reached the peritoneal covering of the intestine. He had evidently generalized from a single case, and that an exceedingly uncertain one. We know that post-operative ileus will occur from time to time in the practice of any surgeon, but least frequently in the practice of one who is most careful to cover all raw surfaces. Unless this accident should be found to occur most frequently in the practice of men using iodine, to attribute it to the iodine would be entirely illogical. For several years I have been using iodine freely over the abdomen in all of my abdominal cases, and I have also used it in the pelvis freely when the source of infection was there, in and around appendiceal abscesses, and in the immediate field of



operation in making gastro-enterostomies, and entero-enterostomies. Several of my assistants have been using it with equal freedom in their work. The records of this use would certainly cover several thousand cases, but thus far I have had no instances of post-operative ileus. The danger, therefore, if not absolutely mythical is certainly negligible.

The object of the efficient surgeon is to cure his patient. He will not accomplish this in many cases if he simply removes a chronically inflamed appendix, or an ovarian cyst, or enucleates a fibroid. Many of the patient's symptoms may come from more or less marked pelvic adhesions, retroversion, or a tendency to prolapse. Under those circumstances, in addition to performing the main operation which he contemplated, he should correct so far as possible all the pathology that is present, or at least all that he can without jeopardizing the patient's convalescence. For these reasons, when he finds in his preliminary examinations that there is some pelvic pathology, at least in the way of retroversion, he should make a median incision for the removal of the inflamed appendix, and then through this incision separate adhesions and shorten the ligaments by the method of Gilliam or Baldy, or by any other method which he may prefer.

In the removal of infected tubes it is a little easier to ligate the tube and remove it a half inch or an inch from the horn of the uterus; but that method leaves an infected stump which will almost invariably interfere with convalescence, and leave the patient still an invalid. The efficient surgeon will remove the tube well into the horn of the uterus so as to take it completely away. If the uterus itself is the seat of hyperplasia, and not likely to undergo normal involution, it will be well in cases in which both tubes are removed, so that there will be no possibility of pregnancy, to remove the uterus also. When, however, the uterus is not thus diseased, and the patient is young, its preservation, together with the ovaries, will maintain menstruation, and keep the patient mentally, and probably physically, in better condition.

With our present knowledge of the frequency with which decaying teeth are a source of constitutional infection, all such teeth should as a rule be extracted while the nurses are putting on the

dressings, preserving, of course, those that can be treated by the dentist. Since Keen and others have shown the frequency with which warts and moles become malignant, these, I think, should also be removed if the condition of the patient justifies it. The writer has had many a patient really more grateful for the removal of unsightly moles, and the extraction of old teeth, than for the removal of her fibroid or gallstones.

I wish it to be distinctly understood that nothing which I have written above is to be construed into any excuse for slap-dash surgery. The efficient operator's movements may seem very deliberate, but the time of operation is short because he does not make a single false movement. The operator who makes a great display of apparent haste in his operation is very apt to find that "the more haste the less speed," and while he may keep the operating room in an uproar, the time which he consumes is lengthened and the risk to his patient greatly increased. Such haste usually means slovenly surgery, while efficient surgery means perfect surgery.—*Lancet-Clinic*.

## Extracts from Home and Foreign Journals.

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### SURGICAL

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#### LOCAL ANAESTHESIA BY THE INFILTRATION METHOD.

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O. S. Fowler, of Denver, has presented a careful discussion of this subject in the *Denver Med. Times* for January, 1913. After discussing the history of local anæsthesia and its indications, he takes up the various methods of administration, including the infiltration and intravenous methods. His success following these means of local anæsthetization has been so marked that he has given this form a wide range of usage. He says, "I am sure that the lack of a more general adoption (of local anæsthesia) is due to the fact that too many physicians are not thoroughly conversant with its application in major surgery, or are simply prejudiced against it, and do not perfect themselves in its technique. I am glad to know that the nose, throat and eye men are using it much more regularly and with uniformly good results and satisfaction. The choice of the anæsthetic is wholly a personal question. Cocain has been the sheet anchor for many years, but it is undoubtedly more dangerous than novocain or quinine and urea. Novocain is reputed to have only one-seventh the toxicity of cocain. Personally I use novocain entirely in  $\frac{1}{2}$  to  $\frac{1}{4}$  per cent solutions with 9 drops of adrenalin, 1-1000 to each 100 c.c., and find that this answers every demand. If I do not get perfect anæsthesia, I feel the fault is mine in the administration and not the fault of the drug." Dr. Fowler has successfully used novocain in over 200 cases which include 33 herniotomies, appendectomies, suprapubic cystotomies, removal of large lipomata, and orchidectomies, etc.—*The Lancet-Clinic*.



## ARTERIOVENOUS ANASTO-MOSIS FOR IMPENDING GANGRENE.

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This operation was performed by Goodman in fifteen cases on the femoral vessels, and in this series he noted that the foot, previously cold and cadaverous in appearance, took on a feeling of warmth and a healthy pink color. The valves of the veins were only a temporary barrier to the course of the blood against the constant pounding of the heart. The pain due to ischemia was relieved shortly after the operation in all these cases. Strongly presumptive evidence of establishing a reversal of the circulation are the following facts: improvement of color, increase of warmth of the affected part, relief from pain, filling of the superficial veins, pulsation of veins below site of anastomosis, and return of part threatened with gangrene, or the actual seat of gangrene, to the normal.

Goodman had six successes. Several of these cases which promises success required amputation later, but even these had temporary relief from pain. He used the end-to-end method in all excepting one case, as he found it the simplest in execution and least likely to cause thrombosis. The operation should not be undertaken in the presence of sepsis, advanced or fulminating gangrene. The opportune time for intervention is in the pregangrenous stage before mortification has set in, in order to prevent its inception. In nonseptic gangrene the improved nutrition of the limb may be hoped for, permitting lower amputation than would otherwise be possible. The utmost delicacy and skill in minute detail must be observed in order to avoid the formation of thrombi; a most rigid asepsis is required throughout the operation, or the object of the operation will be defeated. Goodman made thirteen end-to-end anastomoses, one side-to-side, and in two of the cases an exposure of the vessel showed that an attempt to anastomose was not warranted, on account of the advanced stage of thrombosis of the vessels. In two cases with gangrene a low amputation seemed to be satisfactory. Of the eight cases which were failures, including one death, one was a side-to-side anastomosis, and three of the remainder should not have been op-

erated on on account of the presence of spreading gangrene.—  
*The Journal of the Am. Med. Assn.*

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SCOPOLAMINE-MORPHINE-ATROPINE AS AN ADJUNCT IN  
INHALATION ANAESTHESIA.

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Marcom, in the *Proceedings of the Royal Society of Medicine* for April, 1913, asserts that the advantages of a preliminary injection of scopolamine-morphine-atropine as an aid to a general anæsthetic are manifold. The drowsy condition into which the patient generally falls frequently enables the anæsthetic to be administered without the patient waking up. This seems to be particularly the case in highly nervous patients—a very satisfactory point, as it is these patients who feel most acutely the preliminaries of the anæsthetic. In this connection it should be mentioned that the initial administration of ether is sometimes liable to awaken the patient, owing to its irritation of the bronchial passages, so that it is best to commence the induction with some less irritating anæsthetic. Personally, Marcom states he always uses the ordinary chloroform-ether mixture, and then continues with open ether when the patient begins to go under. If this is done the initial stage of induction is almost ideal; the patients are absolutely tranquil; there is no struggling or excitement; the respiration is deep and regular, and the pulse is full and slow. It is found that much less anæsthetic is required to obtain surgical anaesthesia, and this is certainly very marked in the case of open ether. Nicholson, in 1909, estimated this reduction at 50 per cent.

When anaesthesia has been obtained the pupils remain contracted and react faintly to light, the corneal reflex being hardly ever lost. This latter fact may render it difficult to judge when a sufficient degree of anaesthesia has been reached, but a good idea can be obtained by paying careful attention to all details, such as the condition of the respiration. The action of the atropine is noticeable owing to the fact that there is great diminution in the amount of the bronchial and salivary secretions, so that it is not

necessary continually to clear out the mucus from the pharynx during the administration, and there is less tendency to post-operative bronchitis pneumonia. Indeed, Marcum asserts he does not recollect a single case of either of these complications arising in patients treated in this way. A number of surgeons have stated that it is impossible to obtain thorough relaxation of the abdominal muscles when scopolamine-morphine-atropine has been employed, but Marcum thinks this is the exception rather than the rule. It is in some cases due to the small amount of anæsthetic employed, but very occasionally cases do arise in which it appears impossible to overcome this rigidity. He has been impressed by the fact that this rigidity is very rarely a prominent feature in abdominal operations, gynecological or otherwise, where the entrance into the peritoneal cavity is effected below the level of the umbilicus, and most of the cases in which it does occur are those in which operations are performed in the epigastric region, in which situation the recti show greater development.

After the operation the patient, almost without exception, sleeps uninterruptedly for three hours or more, and this may be considered the most advantageous fact in this connection, as it does away to a great extent with post-operative shock, and also with the post-anæsthetic vomiting, which is so often such a distressing feature. Felix Rood in the *British Medical Journal* of September 23, 1911, in a report on 400 cases, states that in 255 there was no vomiting, 120 vomited once or twice, and 25 did so several times. At St. Thomas' Hospital, however, the diminution in number of cases of post-anæsthetic vomiting has been even more marked than this, and the Sister of one of the female surgical wards reports that out of fifty consecutive operation cases so treated not one case of post-anæsthetic vomiting occurred. This treatment has been found so satisfactory in the gynecological ward at St. Thomas's that all operation cases have the preliminary injection as a matter of routine. The small proportion of cases in this ward that have post-anæsthetic vomiting may be gauged from the fact that of the last 127 cases operated upon there only six have vomited; of these six, four vomited only once, and then only slightly, two were considerably affected for twenty-four hours after op-



eration, but one of these latter was an acute case, and the preliminary injection was administered only ten minutes before commencement of the operation. It should be mentioned that in this series the anæsthetics were administered by different individuals, ranging from the senior visiting anæsthetist to the most junior house officers.

A point that is frequently raised by critics of the scopolamine-morphine-atropine injection is that it greatly increases flatulence and constipation following operation, but the atropine tends to counteract the effect of the morphine, and Marcom's experience is that the patients do not have, as a general rule, any more trouble in this direction than those who have not had the preliminary injection. The dryness of the mouth, caused by the atropine, is sometimes complained of by the patients, but generally proves to be a minor trouble, and can be rectified by frequently washing out the mouth with water.

In conclusion, Marcom states that roughly 600 surgical cases pass through his hands each year, of all of whom he has the personal care, both before and after operation. Of this number, 40 per cent have a preliminary injection of scopolamine-morphine-atropine, and it is his honest conviction that these latter have a much better time in every way than those who are not so treated. —*The Therapeutic Gazette*.

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#### A NOTE ON THE TREATMENT OF ERYSIPELAS BY BUTTERMILK.

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Arnold makes a remarkable communication to the *Practitioner* for May, 1913, on this subject. He well says that no medical man with any large experience of erysipelas is likely to express unqualified satisfaction with any of the traditional methods of treating the disease. The multiplicity of the remedies suggested is strongly suggestive of a lack of therapeutic power in, at any rate, the majority, and goes far toward relegating it to the class of *opprobria medicorum*. In these circumstances a paper such as that of Dr. Lawrance in the March number of the *Practitioner*, on

the treatment of iron, is likely to be read with a good deal of interest and to lead to a thorough trial of the method.

For many years past Arnold has used, in the treatment of erysipelas, a simple remedy which he believes to be as certain and even more rapid in its abortive action on erysipelas than the salicylate of iron as described by Dr. Lawrance. The remedy is buttermilk, which he orders to be applied on soft rags—buttercloth is excellent for the purpose, which are kept constantly wet with the remedy.

About seventeen years ago he had under treatment a girl of 19, suffering from erysipelas of the face and scalp. She was ill for several weeks, and had a great deal of pain, frequent relapses, and so on, but eventually recovered, and he sent her to the seaside to recruit. While there she very much overtaxed her strength by a long walk, and came home in a condition of exhaustion. The next day the erysipelas was back again in the face and scalp, the temperature ran rapidly up to  $104^{\circ}$ , and she suffered very severe pain. While waiting for the arrival of medical help a friend suggested that some buttermilk should be procured and applied freely, saying that she had heard a farmer's wife say that buttermilk was a splendid remedy in erysipelas.

The suggestion was followed; so buttermilk was got and rags soaked in it were applied to the inflamed surface. The pain was immediately relieved and quickly removed altogether. The temperature remaining high, however, it was suggested that, in addition to the local application, she should drink buttermilk. She did so, with the result that the temperature dropped almost at once from  $104^{\circ}$  to  $99^{\circ}$ . The inflammation very rapidly subsided, and the patient was practically well the next day. On returning from the seaside, the patient came to see Arnold, and gave him a clear account of the whole experience. The evidence seemed good enough to justify a trial of buttermilk in any subsequent case.

The opportunity occurred in a case of facial erysipelas in a man, who had had a severe and obstinate attack about two years previously. There was an extensive inflammation, with high temperature and great pain, when Arnold was called in. He or-

dered buttermilk to be applied freely and continuously. The spread of the inflammation, which had been rapid up to that time, was immediately checked and the pain entirely relieved. The whole morbid process was aborted, and the next day the patient was practically well.

He does not think that he need give other cases in detail, but further states that since that time—some seventeen years ago—he has treated every case of erysipelas has had to deal with by this method. The application must be very free, the cloths not being allowed to dry, but being kept constantly wet with the buttermilk. This method has given him quite uniform results; the spread of the inflammation is immediately checked on the application of the buttermilk, whatever the stage of the erysipelas; the pain disappears, and the whole morbid process rapidly aborts.

Arnold asserts he can find no allusion to this method of treating erysipelas in the Medical Digest, and he has not met any medical man who was acquainted with it, though it would appear to be an old country remedy, as, since first learning of it, he has found that it is fairly widely known to farmers and their wives. An interesting question well worthy of investigation is whether the undoubted abortive power of the buttermilk is due to the presence of beneficent microorganisms therein, to the antiseptic action of its lactic acid, or, perhaps, to the two combined.—*The Therapeutic Gazette*.

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#### HOW TO MAKE AND APPLY A POULTICE.

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When a poultice is applied directly to the skin it must be allowed to become a little cool before the patient can bear it, and thus half of its advantage is lost. In order to relieve spasm, as in colic—intestinal, biliary or renal—to relieve inflammation of the pleura, the lungs, the liver and the other organs, we want to apply the poultice as hot as possible, while we protect the skin from being scalded.

In order to do this, especially when a linseed-meal poultice is used, a flannel bag should be prepared (a convenient size being



12 inches by 8 inches). This should be closed at three edges and open at the fourth; one side of it should be about one inch or one and one-half inch longer than the other. It is convenient also to have four tapes attached to the points which form the corners when the bag is closed, in order to keep the poultice in position. Besides this another strip of flannel should be prepared, the same breadth as the length of the bag and long enough to wrap around it once or oftener.

Cracked linseed, bowl and spoon should then be got together, and the spoon and bowl thoroughly heated by means of boiling water. The poultice should then be made with fully boiling water, and rather soft. As soon as it is ready it should be poured into the bag, previously warmed by holding it to the fire; the flap which is formed by the longest side of the bag should now be turned down and fastened in place by a few long stitches with a needle and thread. It should then be quickly wrapped in the strip of flannel and fastened. It may be covered outside with a sheet of cotton-wool.

In this way the poultice may be applied boiling hot to the skin without burning.—*The Medical Brief*.

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#### THE EFFECT OF THYROID EXTRACT ON THE BLOOD PRESSURE AND ISOLATED HEART.

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The author experimented on dogs, into the veins of the neck of which he injected the extract of the healthy thyroid and toxic extracts of exophthalmic goiters, in doses of 0.5 of extract for each KG. The experiments on the isolated hearts were done with the apparatus of Borscharow in solutions of the extract of 1 in 500. He came to the following conclusions: The extract of the thyroid produces lowering of the blood pressure in most cases. It produces an increase in the height of the peripheral pulse and also the rate of the pulse. The reduction of the blood pressure is dependent in a large measure upon the diminution of the tonus of the vessels and dilation of the peripheral vessels. On the iso-

lated heart the extract of the thyroid increases the pulse rate in most cases and increases the height of the pulse wave. The degree of the effect of the extract upon the blood pressure can be brought into relation clinically with height of the pulse wave. The degree of the effect of the extract of the healthy thyroid on the blood pressure of animals into the abdominal cavity of which a thyroid enucleated from a diseased animal was introduced give rise to the opinion of an increased sensibility to thyroid toxins. The condition resulting reminds one of the appearance of anaphylaxis. This probably explains the effect of even small doses of thyroid extracts on patients suffering with toxic goiter.

J. F. Percy, of Galesburg, Illinois, in a paper read before the last meeting of the A. M. A., spoke of the good effect of thyroid extracts in preparing patients, the subjects of high pressure, for operations. He stated that the results were practically uniform, in that a decided reduction of pressure was obtained. The writer (abstractor) has tried this on five cases, all of interstitial nephritis and with blood pressure above 210 in each instance, and has seen very marked effects in each instance. In view of our handicap in the treatment of this condition the subject would seem to be of more than passing importance.—*New Orleans Medical and Surgical Journal*.

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#### TREATMENT OF GONORRHEAL ORCHITIS.

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The classical treatment in cases of gonorrhœal orchitis is purely local: immobilisation of the testicle by means of a suspensory or T bandage, the local application of compresses dipped in cold water and even an ice bag separated from the scrotum by a layer of lint. To relieve the pain Professor Chauffard recommends the administration by the mouth of salicylate of soda (a drachm or so a day) the inunction, locally, three times a day of the following ointment: Guaiacol 5 parts; vaseline 30 parts; very hot enemata, belladonna or hyoscyamus suppositories and injections of morphine.

It is important to suspend the use of lavages, instillations, etc., throughout the acute stage. Lastly, of recent times, surgical treatment has been employed (Baermann, Escat, Bazet) either in the form of incision or puncture under the following conditions: (Lance): 1° grave forms of acute epididymitis, either on account of the severity of the pain or the intensity of the constitutional symptoms; 2° big indurations of acute recurring epididymitis and, 3° old standing very painful fibrous nodules.

Puncture is a simple little operation unattended by any danger and may be useful in recent cases with intense inflammatory phenomena. It can always be tried in severe cases. For the big nodules of recurring epididymitis it may be proposed as a substitute for incision when the latter is refused by the patient (Juliusburg).

Incision is only resorted to in grave cases with phlegmonous or severe toxic symptoms and in cases of recurring epididymitis without fresh urethral infection, and, lastly, in presence of very old standing epididymal nodules which are the seat of pain.

The constitutional treatment of orchitis comprises the following measures: absolute rest in bed, aperients, a lacto-vegetarian regimen, daily tepid baths and the balsams in small doses.

In the course of a fortnight the patient may be allowed to leave his bed and get about a little, wearing the Horand suspensory bandage. To promote absorption of the orchitis, iodine or iodine ointment, sitz baths, repeated massage of the epididymis and cord.—*Le Monde Medical*.

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#### MULTIPLE SPINAL TUMORS REMOVED BY OPERATION IN RECKLINGHAUSEN'S DISEASE.

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The patient, a healthy man of twenty years, began to complain of stiffness and weakness of his leg when 17, and a year later had some difficulty in passing urine. When examined first he had marked spastic paralysis of both legs and of the lower part of the abdominal muscles, with increased knee-jerks, ankle clonus and extensor responses, but no sensory changes. Lumbar puncture



gave a yellowish fluid which coagulated spontaneously and contained from 3 to 4.6 per cent of albumin.

Numerous small subcutaneous nodules were found on his trunk and limbs, which appeared about the same time as his legs were first affected; several were excised and found to be neuromata.

About a year after the first was seen a partial anæsthesia had developed on his lower limbs and up to the level of his umbilicus which increased in intensity gradually. The diagnosis of a spinal tumor was now made, and on laminectomy three tumors of considerable size were found lying on the dorsal surface of the cord and easily removed. Their structure was similar to that of the subcutaneous tumors; they were neurofibromata growing from the spinal roots. The patient recovered rapidly; he was able to walk within two months and next year was fit for his ordinary work.

The importance of the yellow discoloration of and high albumin content in the cerebrospinal fluid is often found with cerebral tumors and may be a valuable diagnostic sign—*The Post-Graduate*

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#### HYPERTHERMIC TREATMENT OF GONORRHOEA.

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Majors L. W. Harrison and G. J. Houghton (*Journal of the Royal Army Med. Corps*, February, 1913) state that the gonococcus can not resist a temperature of 104 F. for six hours, while the urethra can stand a temperature of 114-119 or even 122. They call attention to a fact often observed by clinicians but little known in literature, that gonorrhœa frequently subsides spontaneously during high fever or other cause, as typhoid. They apply heat to the urethra by a double catheter, the outer closed except for an outlet near the external end, the inner tube carrying a current of hot water. Treatments occupy half an hour. They report sixteen cases, successfully treated in 4-11 days, without complications.—*Buffalo Medical Journal*.

## MEDICAL

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### STRYCHNIN IN HEART FAILURE.

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An inquiry was undertaken by Parkinson and Rowlands to obtain evidence as to its immediate effect when given subcutaneously in cases of severe heart failure. The blood pressure, rate and regularity of pulse, rate of respiration and general condition were recorded for an hour after each injection. The action of repeated doses was not investigated. Fifty patients were examined on admission and approved if they presented symptoms and signs of severe heart failure with or without valvular disease; those with heart failure secondary to pulmonary or renal disease were excluded, as were those with pyrexia. Most of the patients showed orthopnea and edema of the legs; all had shortness of breath. Strychnin sulphate in a dose of one-fifteenth of a grain (1-15 gr. = 0.0044 gm.) was given subcutaneously in each experiment. Before any observations were made the patient was allowed to remain quietly at rest in bed for three to eight hours, and during this period no drugs were administered. After the injection, records were made at the end of each period of five minutes during one hour. In cases with regular rhythm on no occasion was any increase in blood pressure produced. The average rate of the pulse before injection was 107.6, and after injection 104.0, a slight decrease of 3.3 beats per minute. The authors ascribe this fall to the same factors as mentioned above under blood pressure.

The rate of respiration was unaffected by strychnin. No change in amplitude of respiratory movement was noted. In four cases out of the twenty-five Cheyne-Stokes breathing was recorded on this abnormal respiratory rhythm. In twenty-five cases with auricular fibrillation the average rate of the pulse decreased by only 3.4 beats per minute in the hour following the injection. None presented any change in irregularity. The average rate of respiration showed a decrease of not more than one or two respirations per minute alike after strychnin and after pure water.

No change was observed in the amplitude of respiratory movements. In one case Cheyne-Stokes respiration was recorded; this remained unaffected by the injection. The authors conclude that strychnin has no effect which justifies its employment as a rapid cardiac stimulant in cases of heart failure.—*The Journal of the Am. Med. Assn.*

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### DR. PITZER'S PILLS.

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Burnett, in the *Physicians' Drug News*, gives the following formula of the late Dr. Geo. C. Pitzer's pill, which is a very important remedy:

Extract colocynth comp.	.....	℥xij.
Ext. belladonna	.....	℥j.
Ext. nux vomica	.....	℥iv.
Podophyllin	.....	℥ij.

Mix and make six thousand pills.

Regarding this pill Dr. Pitzer said: "People have learned to rely upon those pills and say they remove biliousness, overcome constipation and always move the bowels gently without exciting pain."

Could Pitzer's formula be put up in a fluid form, both plain and palatable, that would not precipitate? asks Dr. Burnett. If so, how? I would like to know more than one palatable formula, if possible, as often a physician wishes to continue a medicine without the patient knowing it. I really desire a way of fixing Pitzer's formula in fluid form that will not require any pharmaceutical apparatus, simply a way the dispensing physician can follow out.

Dr. Geo. C. Pitzer was a noted eclectic physician, author of a book on suggestion and one on electro-therapeutics and was professor of the practice of medicine in the American Medical College of St. Louis for twenty-five years. He died a few years ago



in Los Angeles, Cal. I consider Dr. Pitzer's formula one of great value. I was licensed to practice medicine December 16, 1902, and in over ten years' experience I have found that biliousness, torpid liver, coated tongue, etc., is the most common condition a physician meets in this locality, either alone or in connection with other conditions.—*The Medical Brief*.

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#### ALCOHOL IN MEDICINE.

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Professor Ewald, of Berlin, has recently taken the position that alcohol no longer occupies a place of usefulness in the treatment of disease, except for certain external conditions. He says that the value of alcohol in infectious diseases has not been proved, and that it actually diminishes natural resistance. In his clinic, alcohol is administered only in severe collapse, or as a means of euthanasia. "It is probable," comments the *Boston Medical and Surgical Journal*, "that the next fifty years will see a gradual increase of this reaction, already rooted in the practice of most progressive physicians, against the indiscriminate use of alcohol.—*The Medical Fortnightly*."

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#### THE TREATMENT OF PERNICIOUS ANEMIA.

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Bramwell (*British Med. Jour.*, 1913, 2734, 1993) reports the results in 11 cases of undoubted pernicious anemia and in 1 doubtful case treated by salvarsan. Of the 11 undoubted cases 4 have been apparently completely cured, but it is impossible to say whether a relapse will occur later or not. In 2 cases there was very striking temporary improvement, but ultimately they relapsed and death resulted. In 1 case there was slight improvement at first, but the patient died from broncho-pneumonia while under treatment. In 2 cases there was no improvement, and in 1

case still under treatment there is slight improvement. Bramwell has had nearly 40 years' experience with the ordinary arsenical method of treatment of pernicious anemia, and he believes that the salvarsan treatment is superior to the ordinary arsenical treatment. Further experience is necessary, however, before one can say whether the beneficial effects, which it undoubtedly produces in many cases, will be lasting or merely temporary. Bramwell has always given the salvarsan intramuscularly, the dose used being 0.3 gram, which is half the dose usually employed in syphilis. In view of the fact that pain and inflammation often follow intramuscular injections of salvarsan, he advises neosalvarsan, which does not produce such marked local reactions.—*New Orleans Medical and Surgical Journal*.

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#### A RAPID CLINICAL METHOD FOR THE ESTIMATION OF UREA IN URINE.

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The method consists in incubating a portion of urine with an aqueous extract of soy bean flour, all the urea being thereby transformed into ammonium carbonate through the action of an enzyme existing in the soy bean. To prepare the extract, 25 gms. of soy bean powder are mixed with 250 cc. of distilled water and allowed to stand an hour. 25 cc N/10 HCl are then added, allowing the mixture to stand a few minutes longer. This precipitates most of the protein, which is then removed by filtration. A few drops of toluene are added to the filtrate as a preservative. The urea determination is as follows: Two 5 cc. portions of urine are measured into flasks of 200-300 cc. capacity and diluted with distilled water to 100-125 cc. 2 cc. of enzyme solution are added to one flask, a few drops of toluene to each, and the solution allowed to remain well stoppered at room temperature over night. The fluid in each flask is then titrated to a distinct pink color with N/10 HCl. using methyl orange as an indicator. The amount of HCl. required for the urine and enzyme solution, less

the amount used for the urine alone and the amount (which must have been previously detained) required to similarly titrate the enzyme solution corresponds to the urea present in the urine. 1 cc. N/10 HCl. corresponds to 0.6 gm. per liter of urea in the urine. The error of the method is under 2 per cent.—*The Post-Graduate*.

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#### INFLUENCE OF X-RAYS ON GERMINATION.

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Drevon (*Arch. d'Elec. Med.*, July 10, 1913), finds a stimulant action on sprouting grains, with mild irradiation, especially combined with warmth. In the discussion, the question was raised whether strong rays would not have a deterrent effect in accordance with the general principle observed for other therapeutic means that a difference of dose, or strength causes opposite effects. The question was not definitely answered. (Note.—When we consider the well known application of this principle to various drugs, mechanic methods, heat, and other forms of radiant energy, it is only fair to acknowledge that there is something to the doctrine of *similia similibus*.)—*Buffalo Medical Journal*.

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#### PICRIC ACID AND CAMPHOR CURE RINGWORM.

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Savill (*London Practitioner*) praises strongly Williams' formula for the treatment of ringworm, this consisting of picric acid, 7 grains, camphor  $\frac{1}{2}$  ounce and rectified spirit  $\frac{1}{2}$  ounce. Dr. Savill used this mixture with gratifying success in fifty cases, of which full records were kept. She secured cures in cases which had been treated for months with other remedies without success. She says that among the nurses and mothers of the neighborhood of the Children's Hospital, where the treatment was given, she



acquired the reputation of being able to cure ringworm within three weeks. Dr. Savill makes a number of suggestions regarding technique. First, no other applications should be made; second, all the camphor in the lotion must be dissolved; third, the hair must be cut around the diseased patch in the usual way and the lotion painted on night and morning; fourth, the yellowish powder forming on the skin must be lightly washed away twice a week in order to insure fresh applications reaching the scalp; fifth, the hair should be clipped or shaved off two or three times a week, otherwise the lotion will not penetrate to the scalp; sixth, loose hairs must be removed with the epilation forceps, being careful not to break them off. Chloroform rubbed over the patch gives the diseased hairs a frosted look which makes them easy to locate.—*The Medical Fortnightly*.

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#### ADDISON'S DISEASE, ACUTE.

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The author reports the case of a young man aged 21 years, previously always healthy, in whom a rapidly developing Addison's disease, with fatal termination in eighteen days, was witnessed. The symptoms appeared in the following order: A progressive fall in blood pressure was first noted. Then there appeared muscular weakness and evidences of some form of intoxication, including vomiting. Finally, there was observed a distinct pigmentation, localized more particularly over the genitals, axillæ and mammary areolæ. There were also diffuse and more or less extensive patches of melanoderma on the abdomen and the thorax. The mucous membranes of the cheeks, palate, and tongue were deeply pigmented. Subcutaneous injections of large doses of epinephrin were given, but no lasting effects were obtained. The autopsy revealed, in addition to a former, mild tuberculosis of the lung, complete caseation of the two adrenal glands, with marked hypertrophy of an accessory adrenal, but no change in the solar plexus.—A. Lippmann in *Medizinische Klinik*.

CHOLELITHIASIS, SIMPLE METHOD OF TREATING.

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The author having learned that in certain localities radish juice was used with success in the treatment of cholelithiasis, tested the matter for himself in the course of twelve years, with results so conclusive as to lead him to record them for common benefit. In all cases suitable for medical treatment radish juice was given, and seven illustrative cases are described in which the use of this homely remedy was followed by complete disappearance of the attacks of hepatic colic. Either white or black radishes are used. They are ground up in a machine and the pulp thus obtained expressed through a piece of cloth. The resulting "juice" should preferably be taken fresh. The treatment may be begun either during or immediately after an attack of colic. On the first day a half-cupful is given, while later the amount is increased to a cupful and finally to 2 cupfuls. This amount is continued for two or three weeks, the dose being then gradually cut down until a half-cupful is being taken three times weekly. Most patients do not find the preparation unpleasant to take. In the majority of cases the author ordered the "cure" repeated several times during the year, even where no symptoms had been present. The *modus operandi* of the radish juice he is unable to specify, but he feels justified in recommending it as a safe and efficient remedy. —Gramme in *Medizinische Klinik*.

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OBSTETRICAL

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STIGMATA OF DECADENCE IN GYNECOLOGY.

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In considering the matter of sterility in women it is necessary to look far beyond the pelvis and to make note of influences belonging to the stage of decadence which we are now approach-

ing in this cultural period. The oak tree is not allowed by nature to grow beyond a certain height, and the human species is not allowed by nature to go beyond certain limits in development. This belongs to nature's plan, and while we may not be able to read the meaning, we may at least observe the fact.

The stigmata of decadence which come under the observation of the gynecologist may be classified under two chief heads: primary anatomic defects, belonging to hereditary entailment; and secondary anatomic defects symptomatic of reflex disturbance from peripheral irritations, and also from lack of control, hereditary or acquired, of structures which are under the guidance of the sympathetic nervous system.

The first group I will not bring forward for discussion on this occasion. It includes such definite anatomic defects as hermaproditism, double uterus, fibro-nodosis of the oviducts, and ovaries containing few or no ova. In these cases we often find the glans clitoridis buried among adhesions, possibly signifying that nature, in the course of development of the species, is trying to dispose of the clitoris by evolution, although it is more probably an atavistic sign. The endometrium in these cases may appear to be well enough developed, so far as microscopic evidence goes, but it does not resist infection by the colon bacillus and other bacteria which prey upon the protoplasm of the cells of the endometrium, introducing one cause for sterilization. In these latter cases also, we find "one child sterility," where the uterus carries one child to term but the generative apparatus is unduly damaged at parturition and there is a tendency for no more children to be born. The endometrium in these cases sometimes fail to develop the impregnated ovum.

The second group of cases is the one to which I wish to draw attention today. The central nervous system irritated by various peripheral disturbance gives demonstration in reflex disturbances of the sensory and trophic nerves of the pelvic organs. It seems as though nature, in limiting the development of the species, strikes first at the point of vital importance—the generative organs of women. In these cases (commonly patients of neuro-pathic habit) we often find relaxation of peritoneal supports,



loose kidney, sagging colons, and defective ductless glands, which may make demonstration in the pelvis of women in the form of cystic degeneration of the ovary, varicocele of the broad ligament, and various flexions and versions of the uterus. I have seen cases in which the ovaries had been removed for ovarian neuralgia, and yet the patient had just as much ovarian neuralgia afterward as before. In some of these cases the symptoms were relieved by correcting eye strain and balancing badly balanced eye muscles, which had precipitated symptoms referable to distant points, including the pelvis, in susceptible patients. In other cases pelvic symptoms have been relieved by the treatment of mechanotherapists and various hygienic faddists.

In the treatment of cases of uterine flexion or version, of ovarian neuralgia, and cystic degeneration of the ovaries, we must look far away from the pelvis when beginning treatment. In the words of Herr Bebel, in the Reichstag, "Wir müssen zum Grunde gehen." I see many cases, in which fibroid degeneration of the appendix seems to irritate the pelvic ganglia in such a way as to lead to disturbances of the sexual apparatus, which has been treated at great length by gynecologists, and patients have been subjected to curetting and the introduction of various stems and pessaries interminably. The conditions calling for treatment in the female pelvis commonly belong to the stigmata of decadence, even when there are no primary anatomic defects, and the gynecologist must be a whole physician before taking up the details of work in his special field, in relation to these cases.—*New York State Journal of Medicine*.

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#### CANCER OF THE UTERUS.

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These two articles were presented by request at the recent international medical congress. Ott is known as the apostle of extensive vaginal and Wertheim of extensive abdominal hysterectomy for cancer. The former states that while his percentage of

permanent recoveries is a little smaller than with the abdominal technic, yet the number of persons actually cured is higher than with the abdominal technic as none was damaged in any way by the vaginal operation, while the operative injuries and by-effects from the abdominal operation lead comparatively frequently to fatal complications. Ott grants that once past the breakers, a larger proportion of the individuals left are cured, but he claims that by avoiding the breakers a bigger crowd of patients start on the road to recovery, and the percentages are thus not comparable between the two groups. His total mortality in 345 vaginal hysterectomies for uterine cancer was 1.7. Of the 246 patients whose fate is known after five years, 34.1 per cent seem to be permanently cured. There is thus a proportion of seventeen permanent cures to one fatality (17 to 1). He tabulates along with his figures Wertheim's published statistics in 500 abdominal cases; the immediate mortality was 19.4 per cent; of the 180 patients whose fate is known after five years, 57.6 per cent seem to be permanently cured. The proportion of permanent cures to one fatality is, however, only as 1.7 to 1.

Wertheim's article brings his statistics down to date; abdominal operations for cancer of the cervix in 714 cases; primary mortality 18.6 per cent; the permanently cured after five years, 186 or 42.5 per cent. Among this group cured for five years are 14 patients whose lymph-nodes showed malignant involvement at the time of the operation. He had post-operative necrosis of the ureter in 6 per cent of the total 714 cases. He found only 50 per cent operable of the 1,501 cases encountered during the fifteen years since he introduced his more extensive technic.

Ott sums up his comparison of the end-results with the two methods in the statement: "With the abdominal technic one gets one and a half times more chance of permanent recovery after five years, but one runs eleven times more danger of dying during or immediately after the operation." (Ott's vaginal operation is done with special endoscopes, some of which were illustrated in *The Journal*, 1902, xxxix, 458. He does not describe his technic in this article.—*The Journ. of the Am. Med. Assn.*

TREATMENT OF UTERINE HEMORRHAGE.

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Pfahler, in writing on this subject, concludes his paper as follows:

Roentgenotherapy is the method of choice for the control of hemorrhage in patients approaching the menopause, in whom carcinoma can be eliminated.

It is not the method of choice in patients under 40 years of age.

It can be recommended in all cases at any age in which operation is contraindicated.

For the differential diagnosis, in order to determine the indications for this treatment, special skill in gynecology is required; and for the proper administration of the rays, special training in roentgen technique. It is impossible for a gynecologist to become a roentgenologist or for a roentgenologist to become a gynecologist, but it is very unlikely that either one or a roentgenologist will master both. Therefore, Pfahler believes that each case should be examined by a gynecologist, and treated by a roentgenologist.—*The Therapeutic Gazette*.

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CYSTIC DEGENERATION OF THE KIDNEYS AND  
LIVER; PREGNANCY.

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Heinsius reported at the Obstetrical Society of Berlin an instance of a woman, aged 32, who since her first confinement, four years previously, had been under treatment for floating kidney. She became pregnant once more, and went on satisfactorily until the eighth month, when she had a sudden attack of vomiting, headache, extreme dyspnea and disturbances of vision with temporary blindness. There was a high degree of anasarca and scanty secretion of albuminous urine, but no loss of consciousness. The extremities were cold, the pulse 140. Colo-hysterotomy, anterior, was performed and the child delivered by the for-



ceps. The patient's condition at once improved. There was a tumor, like an ovarian cyst, on the right of the uterus, which was slightly taken for a cystic kidney. It diminished in size during the puerperium and the patient seemed convalescent. A few days later the tumor increased in size again and the right lower extremity became swollen; the urine contained blood and pus. Rigors set in and the integuments over the right loin became swollen, red and shiny. Infected hydronephritis, pyelonephritis and perinephritic abscess were diagnosed and the tumor was removed. It proved to be an enormous suppurating small cystic degenerated kidney. The patient died. The left kidney and the liver were found to be in a similar condition. There was hypertrophy of the left ventricle. Heinsius concluded that pregnancy was gravely compromised by the presence of bilateral small cystic degeneration of the kidneys, but the complication was fortunately rare.—*British Medical Journal*.

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#### DUPLICATE GENITALS WITH LABOR.

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J. E. Gemmell and A. M. Paterson describe a case with single anus and rectum, double vulva, vagina and uterus, bladder and urethra, wide separation of pubic bones and absence of umbilicus. Pregnancy and labor occurred in each uterus.—*Buffalo Med. Jour.*

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#### MICROMASTIA WITH ABUNDANT LACTATION.

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Variot calls attention to the lack of relation between the size of the breasts and the functional activity. He cites a case of a woman of forty with well formed nipples but with glandular masses no larger than a silver dollar. She had nursed satisfactorily seven children.—*Buffalo Med. Jour.*

THE ENERGY-QUOTIENT OF THE NATURAL AND ARTIFICIALLY FED BABY.

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The authors find that Huebner's energy-quotient of 100 calories to the kilo for a well nourished breast child during the first month of life is too low. By careful analysis of the food intake, it was found that during the first two months the energy-quotient of a breast child varied between 100 and 120 calories per kilo, being on the whole somewhat higher than the quotient determined by Heubner. On the other hand the energy-quotient of the well-nourished artificially fed child was somewhat lower, bearing out Czerny's statement that the energy needs of the child well nourished with cow's milk is not greater than the needs of the breast fed child.—*The Post-Graduate*.

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CYSTITIS IN WOMEN, TREATMENT OF.

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The mild cases of this affection will usually clear up under plenty of water and some alkaline diuretic, such as potassium citrate, and hyoscyamus or belladonna. With these it is well to give also hexamethylenamine, in the dose of from 15 to 40 grains (1 to 2.5 gm.) daily. Absolute rest in bed with bowels kept moderately loose will hasten recovery. Hot vaginal douches during the acute stage are often comforting. If the dysuria and increased frequency are so marked as to interfere with sleep, sedatives should be given freely.

As the acute symptoms subside, irrigations and instillations are valuable. The author irrigates twice daily with a one-half saturated (2 per cent) solution of boric acid, and adds to this semi-weekly irrigations with 1:5000 silver nitrate solution, gradually increased in strength. For the instillations, 2 per cent protargol or 10 per cent argyrol are efficient. When there are isolated areas

of inflammation, direct topical application through the air cystoscope is valuable.

The condition known as cystitis colli is a mild inflammation about the internal urethral orifice and trigonum, and is probably of gonorrhœal origin. Direct applications of 10 per cent silver nitrate solution once or twice a week are valuable. They should be followed up by alkaline diuretics.

Occasionally severe cases of non-tuberculous cystitis require the formation of a vesicovaginal fistula, with continuous irrigations for several hours daily in a tub of warm water, before relief is obtained.

Tuberculosis of the bladder in women is almost *prima facie* evidence of tuberculosis of the kidney. After the renal infection has been properly treated, the bladder will tend to clear up. Irrigations of 1:5000 mercury bichloride solution, or instillations of 1:500 or greater strength; silver nitrate in weak solutions, or 10 per cent iodoform emulsion in glycerin, are helpful. Excision of ulcers, even curettage of the bladder is advisable in some cases. To these local measures should be added climatic, hygienic, and dietetic treatment, with the aid of which the prognosis can be greatly improved.—F. Webb Griffith in *Southern Medical Journal*.



## Editorial

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**PUBLISHER'S NOTICE**—The Journal is published in monthly numbers of 48 pages at \$1.00 a year, to be always paid in advance.

All bills for advertisements to be paid quarterly, after the first insertion of the quarter.

Business communications, remittances by mail, either by money order, draft, or registered letter, should be addressed to the Business manager, C. S. Briggs, M. D. corner Summer and Union Streets, Nashville, Tenn.

All communications for the Journal, books for review, exchanges, etc., should be addressed to the Editor.

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### CLIMATICS OF HAY FEVER.

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Suffering from hyperæsthetic rhinitis it may be of value to your readers to recite my experiences with climates which I have found to be the only relief of value. Northern Michigan, Musshowa Lakes and Lake of the Woods have always afforded relief. Winnipeg only partial. Montana, Idaho, Oregon and Washington have been very beneficial. British Columbia and Alaska even more so. Great Britain, France, Belgium, Holland, Norway, Sweden, Finland and Russia have granted complete peace. I was much surprised at the relief afforded by the climate of England and France.

*E. S. McK.*

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### FLORENCE NIGHTINGALE AGAIN.

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Being much interested in the life and work of Florence Nightingale I went to Scutare just across the Bosphorus from Constantinople to visit the old barracks where she had her hospital and the English cemetery hard by where are laid those whom her ministrations could not save. The old barracks looks much as it did at her time in '55 and like the pictures in the books on her life. The cemetery is on a point on the Bosphorus beside water running towards Mecca. It was chosen on account of its proximity and very open ground. Here 15-50 were buried in one grave

each morning, according to the number who had died during the past 24 hours. Only the surgeons, nurses, clergymen and officers, were given separate graves, with headstones. Here were a number of surgeons and nurses. In one instance two surgeons were buried in one grave, having died the same night.

The cemetery is beautifully kept under the care of an old Crimean veteran—Major Lyne—and his daughter. The major was but 21 in the war for the conquest of the Crimea and was nursed by Florence Nightingale in the old barracks across the way. The care of the cemetery has fallen to his daughter, who was born, bred and married, delivered and widowed in the neat cottage at the gate. She is a lovely character, her insular English softened and broadened by contact with Americans through her education at the American College for Girls at Constantinople. Just over the wall was where the Bulgarian prisoners were recently kept and where cholera was epidemic. A neat and well kept grave in this English cemetery was one of the U. S. counsel for fifteen years at Constantinople. He was born at Rochester, Minn. The day was beautiful on the Bosphorus and all seemed peace where war had so often raged.

*E. S. McK.*

The governors of the New York Skin and Cancer Hospital, Second Avenue, corner 19th St., announce that Dr. L. Duncan Bulkley will give a fifteenth series of Clinical Lectures on Diseases of the Skin in the Out-Patient Hall of the hospital on Wednesday afternoon, beginning November 5, 1913, at 4:15 o'clock. The lectures will be free to the medical profession, on the presentation of their professional cards.

CHAS. C. MARSHALL,  
*Chairman of Executive Committee.*

#### THE SMITHSONIAN PRIZE.

On the recommendation of the Committee on the Award of the Hodgins Prize of \$1,500 for the best treatise "On the Relation of Atmospheric Air to Tuberculosis," which was offered by the Smithsonian Institution in connection with the International

Congress on Tuberculosis held in Washington in 1908, the Institution announces that the prize has been equally divided between Dr. Guy Hinsdale, of Hot Springs, Virginia, for his paper on "Tuberculosis in Relation to Atmospheric Air," and Dr. Adolphus Knopf, of New York City, for his treatise "On the Relation of Atmospheric Air to Tuberculosis."

The members of the Committee on Award were:

Dr. William H. Welch, Johns Hopkins University, Baltimore, Maryland, Chairman.

Dr. Herman M. Biggs, New York City.

Prof. W. M. Davis, Cambridge, Mass.

Dr. G. Dock, Washington University Medical School, St. Louis, Missouri.

Dr. Simon Flexner, Rockefeller Institute for Medical Research, New York City.

Dr. John S. Fulton, Baltimore, Maryland.

Brig.-Gen. George M. Sternberg, U. S. A. (Retired), Washington, D. C.

CHAS. D. WALCOTT,  
*Secretary, Smithsonian Institution.*

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#### FORM OF DECLARATION REQUIRED OF IMPORTERS OF COCAIN.

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Must File Affidavit as to Direct Imports, and Must Secure from  
All Persons to Whom They Sell Imports a Similar State-  
ment as to the Use of the Coca Derivatives.

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The U. S. Department of Agriculture, acting under Treasury Decision No. 33456, dated May 29, 1913, with relation to the importing and use of cocaine, cocoa, and their derivatives or preparations containing them, has prepared and has ready for issue at all of its branch laboratories and at the Bureau of Chemistry in Washington, copies of the declaration form which must be subscribed to by all importers of and dealers in these products. These blanks will be furnished free on request from importers and dealers.



The purpose of the new system of declaration is to prevent the indiscriminate and promiscuous use of cocaine, cocoa, and derivatives or preparations containing them, on the ground that these things are dangerous to the health of the people of the United States. At the same time, under this declaration entry of these drug products is permitted for legitimate use in medicine. The form of declaration, official copy of which is appended, requires the importer to declare under oath that the import is designed for use in a manner not dangerous to health, and that he will secure from each and every person, firm or corporation to whom the import is sent, the same declaration as to the use the recipient will make of that portion of the import sold or sent to him. In addition, the importer must agree to allow accredited Government inspectors to go over statements from persons to whom he has supplied the goods, and at the end of the year the importer must report to the Bureau of Chemistry the amount of these products that he has on hand on the 1st day of January in each year.

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#### ANOTHER VICTIM OF WOOD ALCOHOL.

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Workman Blinded by Wood Alcohol Fumes Sues Brewery.

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New York City, October 27.—Gustav Kenz, the young varnisher who was made blind for life by breathing the fumes of wood alcohol varnish, which he used in the Bernheimer and Schwartz Brewery to "coat" the inside of their large storage vats, will today resume his suit against the brewery in the Supreme Court of Brooklyn, to recover \$10,000 damages for the loss of his sight. This suit was interrupted by the sudden death of M. E. Bernheimer, who dropped dead in the courtroom on September 25.

Immediately after Kenz became blind, his case was investigated by the New York Committee for the Prevention of Blindness, which is waging a vigorous war against wood alcohol poisoning.

"This case is a tragedy," said Miss Van Blarcom, Secretary of

the committee, and it should never have occurred. Two of Kenz's fellow-workmen were killed by these poisonous fumes while working with him in the vats. None of the poor fellows knew, when they crawled into the vats through the small manholes, that the fumes of the varnish which had been given them to use might cause their blindness or death.

"There is no excuse for the continued use of wood alcohol in varnish since denatured alcohol is cheaper and absolutely safe for all industrial purposes."

This is not the first accident of the sort which has occurred in the Bernheimer and Schwartz Brewery. A year ago one of their employes were blinded and another killed in the same manner. It is incomprehensible that in the face of this severe lesson the brewery should have been so unmindful of the welfare of its workmen as to continue using wood alcohol.

Miss Van Blarcom expressed the opinion that many brewers and the public generally do not know what deadly effects drinking or inhaling the fumes of this poison may have. The committee is therefore endeavoring to inform the public concerning the danger of swallowing or inhaling it; to urge the use of denatured alcohol in the industries; to work for a law requiring that every container of wood alcohol shall be labeled poison; and to attempt to secure legislation or a ruling which will protect workmen against the danger of inhaling the fumes of wood alcohol.

## Reviews and Book Notices

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Diagnosis of the Malignant Tumors of the Abdominal Viscera—By Prof. Rudolph Schmidt, Professor of Medicine in the University of Innsbruck. Authorized English Version, by Joseph Burke, Cc.D., M.D., Attending Surgeon, Buffalo Hospital of the Sisters of Charity, Consulting Surgeon, Emergency Hospital, Buffalo, N. Y. New York. Rebman Co., Herald Square Bldg., 141-145 West 36th St.

The thanks of the profession are due the enterprising publishers—Rebman Co.—for having placed within the reach of English-speaking physicians a work of such practical value as this excellent book of Professor Schmidt. Despite the universal industrious researches of the entire medical profession as to the pathological nature of cancer and its cure, the general consensus of opinion up to the present time is that the nearest cure of the dread disease is the timely use of the surgeon's knife. It is agreed that early operation and thorough eradication does cure. The main difficulty is early recognition of the presence of cancer. The work before us is a study of the diagnosis of malignant tumors of the abdominal viscera and is the outcome of the author's experience in this variety of cancer. It is a life-saving book, for if the practitioner is by it enabled to recognize the disease in time to make an operation a means of saving life, it is invaluable. The work is well arranged and carefully classified so that by its use the practitioner may be enabled to clear up many knotty points in the diagnosis of intra-abdominal cancer. The work of translation has been well done.

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The Surgical Clinics of John B. Murphy, M.D., at Mercy Hospital, Chicago. Vol. II, No. 5. Octavo of 174 pages, with Illustrations. Philadelphia and London. W. B. Saunders Co., 1913. Published Bi-monthly. Price per year, paper, \$8.00; cloth, \$12.00. W. B. Saunders Co., Philadelphia and London.

This is a very interesting number of a very valuable publication. Among the most notable clinics we may mention the following: "Double Inguinal Hernia—Some Italian Statistics—Technic of



the Andrew's Operation;" "Cavernous' Angioma of the Thigh;" "Sarcoma of the Thymus Gland;" "Calculus of the Urinary Bladder—Suprapubic Lithotomy;" "Tumor of Femur—Cavity Filled with Moorhof Wax;" "Tumor of the Tongue—Tuberculoma." These subjects, selected from the table of contents at random, serve to show the wide range of subjects carried in the clinics of this distinguished surgeon. The reader of these clinics can receive almost as much instruction as if he were present when the lectures were delivered. We await the appearance of every new number with impatience and find the contents of every number as entertaining and interesting as a novel. We do not hesitate to advise everyone interested in up-to-date and progressive surgery to subscribe for this excellent series.

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The Problem—The Autobiography of a Physician—By Charles Percy, B.Sc., M.D. *Credo quae de inferis dicuntur falsa existimas.*—Cato. The Shakespearian Press, 114-116 East 28th St., New York. 1913.

This is a book that should prove of startling interest to its readers. It is a probing into the problem of life from a scientific standpoint. It is a book that is without the beaten paths of scientific literature and the author in a most charming and attractive style carries his readers into the mazes of research as to problems of life and the theories regarding it. He begins with investigation of sleep and gives interesting examples of somnambulism. His culminating experiment is in the instance of a newly drowned man whom he failed to resuscitate, in whom he introduces an artificial heart and brings life into the head. It is a weird and yet instructive little book, as its scientific discussions are all accurate and up-to-date. We have read the book with the greatest interest.

## Publisher's Department

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### A FAMILIAR FORM OF CYSTITIS.

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There is a form of cystitis quite familiar to the general practitioner. It occurs in females, old and young, with apparently normal pelvic organs, generally after a chilling. There is an abrupt onset with frequent micturition, tenesmus and perhaps dysuria. The acid urine contains the infecting organism, usually a colon bacillus, pus, and often blood. Rest in bed, local warmth, light diet, free catharsis and sanmetto are the measures employed, and in a few days the severity of the attack subsides, and generally in two or three weeks the patients are well as ever.

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The Mellier Drug Company desire to announce that the Tongal line preparations and Ponca Compound Tablets, in addition to the \$1.00 sizes, so long and favorably known, are now offered in 50c sizes; Tongaline Liquid in 4-oz. bottles; Tongaline Tablets, Tongaline and Lithia Tablets, Tongaline and Quinine Tablets and Ponca Compound Tablets, 50 tablets in a box.

These new sizes should prove a source of much convenience and satisfaction to physicians, because they can feel assured that their patients will then obtain the genuine article when prescribed in these original packages.

Free samples on application to Mellier Drug Company, 2112 Locust Street, St. Louis.

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Pepsin is undoubtedly one of the most valuable digestive agents of our Materia Medica, provided a good article is used. "Robinson's Lime Juice and Pepsin" (see advertisement in this issue) we can recommend as possessing merit of high order.

The fact that the manufacturers of this palatable preparation use the purest and best pepsin, and that every lot made by them is carefully tested before offering for sale, is a guarantee to the physician that he will certainly obtain the good results he expects from pepsin.

# NASHVILLE JOURNAL — OF — MEDICINE AND SURGERY

CHARLES S. BRIGGS, A. M., M. D., Editor

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## Original Communications

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### THE ALCOHOL PROBLEM AS SEEN IN ANCIENT AND MODERN TIMES.

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BY T. D. CROTHERS, M.D., Hartford, Conn.

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There is a historic side to the question of moderate drinking that strikingly confirms the Biblical statement that "there is nothing new under the sun."

Recent researches in the tombs and sarcophagi of Egypt and the ruins of the buried cities of Babylon show that the temperance question, and the use of wine and beer, were topics of intense interest at least seven or eight thousand years ago. Most radical laws were passed regulating the drink traffic and punishing the violators by death. Excessive use of spirits was recognized in the early Egyptian dynasties as a species of madness with degrees of irresponsibility. To take advantage of another man for a purpose was to make him intoxicated by beer and wine. These facts were well recognized. The same questions came up: How far one could drink small quantities of beer or wine and preserve his vigor and health; also whether the moderate use daily of these substances lengthened life and gave more efficiency to the labor and vigor of the person.

Laws enacted in the time of Tholemus I, somewhere about 8,000 years ago, indicated that wines had a special influence over



the spirit life; that through its influence the spirit could demonstrate itself, break away the bonds that held it, and reign for a time in the flesh. The man who drank heavily and was wild and delirious was in possession of a bad, destructive spirit which sought to break down everything that was good. When he was low and beastly in his conduct, it was some gross demon in possession, and so on through the various degrees of abnormal conduct, which indicated the good or bad spirits which had gained possession.

It was distinctly stated that it was very dangerous and destructive to allow spirits to come into the life of the present, breaking down and changing the direction and force which it should take. Hence the man who got drunk often and acted wildly and badly, was given over to the possession of demons, and his future was one of great doubt. His spirit would be crushed, and he never could come back after death to occupy his body again, but would be lost in the shades of some dark, miserable world. Men who persisted in drinking to the extent of intoxication were either made slaves or executed. They had no part in rational life.

This is an outline of the scientific view of the insanity of inebriety, and led up both consciously and unconsciously to the recognition of the physical causes and the organized, uniformed, march of disease. Then the question arose whether any use of beer or wine daily in small quantities was safe and natural, and about this there seems to have grown very great controversies, very much as at present, and the theologic reasons were prominent.

On one papyrus it is asserted that wine in small quantities daily opens the door of the under-world and gives good and bad spirits an opportunity to break down the barriers which hold men free until they are called to leave the body. The inn which men occupy, until death shall call the tenant away, is injured by wine in small quantities, and the enjoyment which comes from its use is followed by sorrow, discontent, and unrest; and the moderate wine drinker is never satisfied with his present condition, but is always looking for some other better condition, which wine seems to bring to him, and then plunges him back into dark recesses of sorrow.

On the Babylon Cuneiform Tablets are records of laws forbidding the use of wine in any form to persons engaged in public business, and asserting that no work done for the government by persons who used wine could be perfect. All builders of palaces, officers of armies, and managers of public works were required to abstain, absolutely, from all use of wine.

In another age the king in a royal decree calls attention to the causes of recent disasters as due to the use of wine by the leaders, and commands, under pain of death, that no spirits shall be taken by persons doing public work.

Various reasons were given why wines could not be used. The principle seems to have been that it made men dishonest and selfish and unfaithful to the interests of the monarch. In Egypt the reasons were theological, concerning the other world. In Babylon they were commercial, economic, and had reference to the inefficiency and losses which followed from it.

The same old question was agitated of prohibition, local option, and moderate use of spirits, and many of the laws and enactments and opinions expressed are the same as those urged today.

It is a curious fact that the injury from spirits taken in any form has been the subject of discussion through all ages, at long intervals, and many of the most modern researches were outlined long ago.

In celebrating the feast of the dead in Egypt, where each one partook of wine in which the spirit of his ancestor had entered, the question was how much could each one drink, and what quantity was safe, so that the user could carry on the observances of the sacrament without confusion. Finally, it was decided that the priests alone could drink the wine with safety, and that the worshippers, looking on, must catch something of the spirit of their ancestors and friends who had come back to enter into the fruits and drinks of the sacrament.

The same questions appear in the churches today, whether wine for sacramental purposes is safe, and the facts gathered to prove its danger have assumed great proportions. Many of the churches have substituted an unfermented drink for this purpose.

Probably that was what was done in Egypt some time in the

ages long past. Science has been testing this question of moderate drinking, and its conclusions are becoming more and more emphatic, and some of the whimsical reasons given by the ancients have been found to be shrewd intimations of actual causes, which are just now beginning to be recognized.

The theory so confidently asserted in many sections, and believed to be beyond question, that alcohol in small doses has a tonic action on the body, giving it additional strength and vigor, has no support in modern research; but, on the contrary, its so-called good effects are found to be due to its narcotic action and sleep-producing properties. The progress of science has made it possible to measure and test the power and strength which come from drugs and foods on the body, and alcohol, judged by this standard and by the modern instruments of precision, is found to be a narcotic.

Thus, for example, a man, temperate and well, is carefully measured from day to day to determine the capacity of his senses, sight, hearing, taste, smell, and touch; also his muscular power, fatigue, sense, rapidity of thought, memory, and capacity of endurance. When these capacities are determined from an average of many days' examination, a basis of comparison is formed. Then the man is given a half-ounce of spirits, usually ethylic alcohol in water, for the reason that this form of alcohol is the purest and most uniform of all spirit drinks. One hour after the use of the alcohol he is measured for the purpose of determining what effect, if any, the spirits have had on these various functions. It is found that they are all depressed and lowered, the senses are diminished in acuteness and capacity, and this can be stated in figures. Thus, the eyesight is diminished in acuteness to the extent of so many inches or feet, the hearing the same. The muscular output is lowered by so many pounds, and the fatigue point is increased, showing diminished capacity for exertion and endurance. The brain has lost its quickness and moves more slowly, and this is measurable in seconds. The power of comparing one thing with another is diminished, and the percentage of mistakes in memory tests have increased to nearly double, and so on with every function of the body. The heart's action



has been raised, but has fallen as far below the normal as it was forced above it.

These facts are all strikingly confirmed in intoxicated persons, but it is new to most persons that a small dose of spirits has precisely the same effect, only differing in degree and unobservable.

The conclusion is that alcohol is not a tonic, does not give new power and strength, is not a stimulant rousing up latent energies, and enabling one to do greater work; but that its effects are the same in all instances and under all conditions; namely, depressing and sleep-producing.

Another fact unrecognized is that the action of alcohol is cumulative; that is, the effects of continuous use gather, cumulate, and finally make themselves known in some obscure injury, either of the mind or nervous system, or by degeneration of the organs.

In Europe, gout, so-called rheumatism, heart disease, and kidney disease are the very common terminals of moderate drinkers. In this country we see apoplexy, cerebral hemorrhage, so-called strokes in which different parts of the body are paralyzed, fatal pneumonia, marked by paralysis of the nerves that lead to the lungs, or tuberculosis, called "galloping," meaning by this, sudden and rapidly fatal termination.

Heart disease includes a great variety of affections that cause a sudden stopping of the heart, either with or without any exciting cause. In reality, wearing out and stopping of the organ from age and debility.

Small doses of alcohol taken in wine or beer at the table all have the same effects, only differing in the amount of alcohol and the presence of other disturbing products. Thus, the beer-drinker, in addition to the three to eight per cent of alcohol, takes extractive matters, ferments, toxins, and substances which derange digestion and favor the growth of soil for the development of germs.

The liver is also overworked in its efforts to throw off the products of deranged food or foods that are not available to build up the body. The beer-drinker is literally blocking up the system with waste products which interfere with normal supply and

overtax the kidneys. As a result, Bright's disease and other disorders terminate fatally.

The wine-drinker at meals, besides the small amount of alcohol in the fluid, is taking acids and salts, and extractive matters that may be very dangerous and obstructive to the food supply of the body, deranging the protoplasm and the food products, and increasing the wastes, as well as diminishing the quality of the supply.

A very pronounced effect from the steady use of beer and wine, or small quantities of spirits, is the derangement of what is called the circulatory system the arteries and veins through which the blood, carrying nutrition to all parts of the body, is sent out and returned by another set of vessels. The blood is forced by the heart with a certain uniform pressure called tension. The coats of the arteries and veins keep up this tension by their power of contracting and expanding, the same as a rubber tube is able to expand with the force of water, or contract when the water is diminished. This is termed the tension, and its uniformity and regularity constitutes health and vigor. Alcohol *diminishes* this tension. The blood is thrown in greater velocity and the walls of the vessels are strained, so that they can not contract and force the current back with the same velocity, and after a time this failure produces paralysis, or inability to expand or contract according to the pressure. This is called congestion. The effect of alcohol on the heart causes it to throw a greater volume of blood with greater rapidity for the first few moments after spirits are taken, and then its power is diminished. The blood-current is weaker; both the power of driving it out and the capacity of returning it are feebler. The flushed face of drinkers from a single glass of beer or spirits shows this mechanical obstruction.

The beer and wine nose and face in persons who have used these excitants a long time show the permanency of this obstruction. This surface appearance extends to the brain and other parts of the body, and is an exact measure of the injury that comes from the moderate use of spirits.

An illustration might be used of the water supply of a city, where the water is dependent upon the pumping of an engine. Its

uniform distribution depends on the regularity of the engine and pumping. If at one time the engine is forced to the highest speed, and the water thrown with increased velocity, and at another the engine drops down to the slowest possible movement, and the water scarcely moves in the pipes of the outlying districts, a very marked derangement will follow.

The water would remain in some of the pipes, and a sediment and rust would accumulate. In others the heavy strain from the water pressure would cause fracture and breaking. This is what happens to the blood circulation of the body when the heart, under the influence of alcohol, forces double the quantity of blood through its tubes, and then drops down to the very lowest possible level. The walls of the blood vessels are seriously injured and their power of accommodating themselves to these changed conditions is permanently destroyed.

A condition grows up which may be practically called vulcanizing, or hardening of the walls, the same as that seen in a rubber pipe which loses its elasticity and becomes brittle and breaks from the slightest pressure. This change in the structure of the arteries is a disease that is very common in our present civilization, and is called apoplexy, cerebral hemorrhage, heart disease, and shocks.

The moderate drinker is almost sure to suffer at some time from these various so-called troubles. Strokes, meaning one side of the body paralyzed either suddenly or gradually, are very common, and particularly follow strains, such as running to a train, excitement, slight blows on the head and body, which are followed by death.

The moderate drinker has high-tensioned arteries, which, as measured by instruments, indicates that the arterial walls are palsied and are likely to break at any time. This tension is particularly painful and distressing in many ways, and tobacco and drugs are taken to relieve it, because they lower the strain and diminish the unpleasant symptoms.

The man who is out of breath from any little over-exertion is frequently the moderate drinker, whose heart is enfeebled and can not adapt itself to the demands.



All moderate drinkers show another symptom of damage in either red, congested, or pale, anæmic faces, and this is an exact representation of the blood and its circulation in other parts of the body.

We have described the mechanical obstruction, noted in the congested red faces. The white anæmic faces show that the blood has been deprived of its iron and red blood corpuscles. It is impoverished. The patient is starved, and the blood is deficient in the qualities necessary to give strength and vigour. This is the direct result of alcohol and its water-absorbing qualities. A single drop of alcohol on the back of the hand produces a sensation of coldness, which is simply the rapid water-absorbing quality of the spirits. If more alcohol is used, the coldness increases, and finally the parts become irritated and painful. Later, a direct inflammation follows from the absorption of the water, and this goes on to the extent of corroding or breaking down the tissue. This takes place when spirits are used internally. The stronger the amount of alcohol, the more it irritates and burns the mouth and throat. Spirit drinkers always drink large quantities of water to protect them from this water-absorbing property of alcohol.

This is what is called its eroding or de-hydrating quality, meaning absorption of water everywhere from cell and tissue. This destroys the nutrition of the blood, the red blood corpuscles, and not only paralyzes the blood vessels but destroys the blood itself and the principles intended to build and nourish the body. There is another fact in this connection that shows the destructive influence of alcohol on cell growth. The cells of the body resemble eggs, only they are microscopic. They contain a covering and contents of granular matter, uniformly distributed and in constant motion. When these cells, under the microscope, are brought in contact with one drop of alcohol to 100 of water, they are found to stiffen and become paralyzed for a time. When two drops are added, their activity is greatly diminished, and many of them lose all power of motion. When three or four drops are used, the death of the cell is evident from the permanent destruction of the granular amœbic bodies.

This is further confirmed by the action of alcohol on plant life. Take two plants of equal size and in the same soil. In one use pure water of uniform temperature; to the other add to the water one drop of alcohol to 100 of water. Keep this up continuously for a short time, and the difference in growth is very manifest. Increase the amount of alcohol and the plant becomes stunted and dwarfed. A still greater increase and all growth is stopped.

The water-absorbing qualities of alcohol have acted on the plant cell and checked its movements. This fact is fully confirmed in the experience of dog-breeders. The dwarfed dogs on the market are produced by stopping their growth in early life by the use of alcohol, and in that way changing the form and character of the dog. Dwarfed animals of any kind can be made by using alcohol in the food and stopping the growth. The same thing occurs in the human family.

The wine and beer given in childhood checks cellular growth, destroys protoplasm, and changes the entire physical nature of the child. Studies of heredity show this very markedly, particularly where persons have used spirits in any form continuously.

The facts are so enormous along this line and their practical confirmation is so evident in the history that it seems surprising that it is not a matter of study.

I call attention to another fact, more obscure, which scientific studies, both in the laboratory and of individual cases, point out—viz., the incapacity and physical defects seen in moderate drinkers.

First, the power of endurance is greatly diminished. No person using spirits for any length of time, in small quantities or otherwise, can endure fatigue, mental strain, muscular effort, as those who do not drink.

When put to the actual test they break down and exhibit incapacity. Two men, one a total abstainer and the other a beer-drinker, both following the same occupation, and both seeming to be in excellent health, started on a bicycle ride. The beer-drinker gave out at the end of 100 miles. The other continued to the end of the journey, some 400 miles, without any discomfort.

This can be amply confirmed by many similar experiences, in almost every department of life, and in laboratory experience is

tested with instruments of precision, showing points of fatigue in different persons, and very markedly in those who use spirits in moderation.

They are unable to exercise muscular strength, to do mental work beyond a certain narrow limit, without suffering. The capacity to add figures, to lift weights, to walk certain distances, to direct affairs, requiring attention to details, are all markedly lowered in this class of persons.

Studies of the mental capacity of moderate drinkers reveal the same early fatigue point, and the incapacity to hold the mind to a definite topic clearly. Faults of memory are apparent; failure of consecutive reasoning, absence of conservatism, crudulity, scepticism, and a great variety of fine mental shadows, and so-called weakness, mark the mental decline of persons who drink steadily.

Curiously enough, such persons are never conscious of this, and are inclined to minimize it as the failure of others to judge them properly.

Psychological examinations bring out these defects very markedly. Dickens' later stories show startling evidence of the rapid decline of his genius, in both plot and description.

The word "paralysis," as we know, means a lowering and diminution of all the powers of mind and body, but the condition is not recognized except in the later stages. Criminal records bring out this fact very clearly, and many startling defalcations and overt acts without purpose have been committed by men who used spirits steadily in such moderation as not to attract the slightest attention.

The conclusion is this: That alcohol is an anæsthetic in its action on the delicate processes of the brain and organisms, and a persistent derangement steadily carried on is sure to leave permanent defects, which may not be recognized until irreparable damage has been done. Probably the pronounced eroding action of alcohol on the cells and the circulation is in the nature of a shock which by constant repetition destroys the uniformity and perfection of the activities of the body.

The well-known illustration of a steel bar that is struck lightly with a hammer continuously for a long period, and then suddenly



ralls to pieces, is applicable here. The concussion from each blow has finally destroyed the tenacity of the fibres and they break down—not from one blow, but from the constant succession of shocks, which has prevented readjustment and restoration following the blows.

In like manner, the continuous use of spirits has lowered the repair processes and deranged the defensive forces of the body beyond the point of recovery, and thus invites disease, disintegration and death.

AUTHOR'S ABSTRACT OF AN ARTICLE ENTITLED, "A CLINICAL REPORT ON THE RELATIVE VALUE OF TURTLE TUBERCULIN IN THE TREATMENT OF TUBERCULOSIS." (From the New York Medical Journal of October 25.)

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BY DR. EDWARD E. MYERS, New York, N. Y.

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All the precautionary measures measures devised by science in late years for checking the advance of tuberculosis, including sanitation, out-of-door living, hygienic legislation and the like have failed to arrest the development of the disease. The annual death toll of tuberculosis reaches the awful figure of two hundred thousand in this country alone, and throughout the world this disease claims one human life every two minutes and a half.

Robert Koch's revolutionizing discovery of the tubercle bacilli has put science upon the right track and since then great progress has been made. Thanks to the research work by Prof. Piorkowski of Berlin, a specific curative and immunizing agent—his turtle tuberculin—as indicated by the collective experience of Dr. Beattie and Dr. Myers, bids fair to herald a new era in the specific treatment of consumption.

Piorkowski believes that an intravenous injection of his turtle tuberculin combines with the receptors, of Koch's side-chain theory, and forms an antitoxin similar to Jenner's vaccine for smallpox, and far superior in curative properties to that formed by injections of living human tubercle bacilli which admittedly a certain result, albeit an inadequate one.

In response to many inquiries since the appearance of the first article on Piorkowski's turtle tuberculin in the New York Medical Journal of September 13, 1913, on the "Relative Value of Turtle Tuberculin in the Treatment of Tuberculosis," the following specific results may be recorded in four of the cases treated.

Case XV.—An inspector in the Custom House Service of the United States Government, 32 years of age, diagnosticated by several competent physicians as presenting all the physical signs and symptoms of tuberculosis of the lungs, having been ill since

about September, 1909, and having fallen off from 175 lbs. to 105 lbs. and becoming too weak to hold his knife and fork in his hand, responded in less than four months to the Piorkowski turtle tuberculin treatment, increasing in weight to 159½ lbs., losing his cough, his pains in the chest and other symptoms, and repeated examinations have failed to discover a single symptom of the disease from which he had been suffering for more than three years. Repeated bacteriological examinations by the New York Board of Health have not disclosed any trace of the presence of tuberculosis. Therefore this case may be considered a specific cure.

Case XXI.—A white girl, aged 7 years, suffering from tuberculosis of the knee-joint for over two years, responded to the Piorkowski treatment in a period of less than four months, to the extent of increasing the motion of the affected joint 50 per cent. The treatment resulted in great general improvement, including the reduction of one-half inch of the swelling of the knee joint and a gain of over six lbs. in weight.

Case XVII.—A white girl, aged 19 years, suffering from tubercular glands of the neck since 1909, responded to less than four months' treatment with Piorkowski's turtle tuberculin by a gain of eight lbs., an increase of appetite and a marked improvement in general condition. Only a few glands remained with no discharging sinus, where formerly had been a large irregular mass of glands with a discharging sinus.

Case XIV.—This case of a man aged 44 years is cited more particularly to bring out laryngeal tuberculosis than a condition of the lungs. The patient had been hoarse for some months and treatment extending to a little over one month gradually eliminated the hoarseness, signs were practically absent in the larynx and there was improvement in the cough, expectoration and color of sputum. The patient retained his weight, although the tuberculous condition was complicated with a severe form of diabetes. One month of treatment resulted in an improvement greater than that attained during the previous eight months under other forms of treatment.

418 Central Park West, New York City.



## Selected Articles

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### THE RELATION OF ANAPHYLAXIS TO THE PROBLEM OF DISEASE.

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BY RICHARD WEIL, M.D., New York City, N. Y.

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Although the phenomena of anaphylaxis are in themselves among the most striking in the realm of biology, their actual importance is derived chiefly from their bearing on two subjects of great practical interest. On the one hand, anaphylaxis is destined to play a considerable role in the development of the entire subject of immunity, and this gives its data a great theoretical interest; on the other hand, it is becoming every day more apparent that an understanding of anaphylaxis is essential to the interpretation of many of the phenomena of human disease. Not only is there good reason for believing that certain diseases, for example asthma, are directly traceable to hypersensitization of the individual, but the problems of diagnosis and of therapeutics are intimately bound up with the methods of anaphylactic investigation. It is impossible to understand the immune diagnostic reactions, as, for example, the reactions to tuberculin, without an appeal to the data of anaphylaxis. Again, in therapeutics, the numerous instances of drug sensitization, but, above all, of serum disease, and of serum death, make an understanding of the underlying principles of anaphylaxis incumbent upon every physician. Indeed, it is a remarkable fact that the development of our knowledge upon this subject has been so tardy, in spite of the frequent and striking manifestations of the phenomenon in medical practice. It is over a hundred years since Jenner drew attention to those very features in secondary vaccinations, which have frequently formed the basis of von Pirquet's analysis of "allergie." Recent activity, however, has made up for the long neglect which the subject suffered. In every scientific centre of the world investigation is busy with the study of anaphylaxis, and the literature of

the subject has already assumed gigantic proportions. In this connection, it is a great source of pride to realize that the labors of American investigators has been most fruitful in the development of the subject. The work of Rosenau and Anderson, and of Gay and Southard elucidated the manifestations of anaphylaxis in the guinea pig. Vaughan was the first to propound the theory of proteid degradation, which has of late years been so actively championed in Germany. Auer and Lewis determined the essential cause of death. Schultz discovered the method of investigating the isolated tissues, a method which has been brilliantly developed by Dale, of London. Famulerer determined the mode of inheritance of sensitization. Banzhaf and Atkinson discovered the protective action of certain drugs. Wells and White have studied the sensitizing properties of chemically pure proteids. Manwaring determined the role of the liver in anaphylaxis, and introduced the method of transfusion, which Coca has since developed. The mere enumeration of these names serves to indicate, though briefly, the signal contribution which American investigators has made toward the understanding of anaphylaxis.

In a brief resume of this subject, it is, of course, self-evident that only the most salient and best established facts can be dealt with. Much is still problematical. Much has not even been touched. But regarding many important principles it is unquestionable that recent investigation has brought certainty and conviction. In the first place, it is important to gain an insight into the nature of the process which manifests itself in various guises, generally grouped together as anaphylactic symptoms. These symptoms differ materially among different species of animals. A guinea pig dies with convulsions, and with the symptoms of respiratory spasm. In the dog and the rabbit the symptoms are predominantly vaso-motor in character, while certain anaphylactic phenomena, presented by man, such as the urticarias and the arthropathies, have hardly an analogy among the inferior species. And yet, there is no doubt, in spite of these differences, that the underlying basis of the process is the same throughout. The essential factor in every case of anaphylaxis is always the union of antigen and of antibody. If a foreign proteid is introduced into

the body of an animal by any route except the natural route of ingestion by the mouth, whether subcutaneously, intraperitoneally or intravenously, the animal body always responds by the production of specific antibodies to that foreign proteid. This reaction consumes a certain period of time. After that interval a second introduction of the same proteid, again by an artificial route, results in a union of the newly-formed antibody with this proteid (the so-called antigen), which, under certain conditions, is explosive in character, producing the symptoms of anaphylaxis. The role which is played by the complement in this union has not been definitely ascertained, and at the present time it is impossible to state with certainty whether or not the complement is an essential factor in the result.

The second important question concerns the site of the reaction. In other words, the tissue in which the union of antibody and antigen must occur in order to produce anaphylactic symptoms. This introduces a problem which has vexed the literature of this subject for many years. It is conceivable that this union occurs in the circulating blood, a belief which I have called the "humoral" theory of anaphylaxis. Again, it is possible that the reaction occurs within the cells of the body, and this has been called the "cellular" theory. The decision between these two theories is not merely of scholastic interest, but is of fundamental importance in the interpretation of practically all the phenomena of anaphylaxis. For the last few years the activities of Friedberger, in Berlin, in fact, of almost the entire German school, have been directed toward the defense of humoral theory, and yet, as I believe certain evidence recently adduced gives almost conclusive confirmation of the cellular view. This evidence is both serological and physiological in character. With serological methods it is possible to show that the presence of antigen and of antibody simultaneously in the serum, never of itself gives rise, in any possible combination, to anaphylactic symptoms. In the second place, if antibody from another animal is introduced into a normal guinea pig, it is only after a lapse of several hours, during which time this antibody can be demonstrated to disappear from the blood, that anaphylactic shock can be induced. Presumably, dur-



ing this latent interval the antibodies become anchored to the cells, and not until this has occurred does the animal become hypersensitive. Finally, by physiological methods it has been shown that an isolated, muscular organ (such as the uterus), taken from a sensitized animal, still manifests a typical specific, anaphylactic reaction, even though every possible trace of serum has been washed out. The conclusion seems inevitable that the reaction occurs within the cells.

The cellular theory of anaphylaxis is of importance in clinical medicine in so far as it explains certain interesting phenomena of disease. It is well known that certain individuals have an idiosyncrasy towards food stuffs, of so pronounced a nature that the very introduction of these substances upon the tongue, or even, as in some recorded instances, upon the skin, produces a striking localized reaction. It seems necessary to conclude, at least in the light of our present knowledge, that the cells of the skin or of the mucous membrane are sensitized towards these foreign proteids by virtue of the possession of specific antibodies. The union of the two produces a characteristic explosive local response.

What may be the nature of the reaction between antigen and antibody, which is of such a character as to produce the symptoms of anaphylaxis, is still unknown. Vaughan and, following him, the German school, have adduced a great deal of very convincing evidence that the union of these two substances results in the production of toxic proteoses. On the other hand, Auer and Lewis have failed to demonstrate any such products in the lungs of guinea pigs killed by anaphylaxis. At all events, we may be sure of one essential fact, namely, that this interaction results in the stimulation of certain characteristic cellular activities, resulting in the production of such varied manifestations as bronchial spasm, vaso-motor paralysis, intestinal inflammations, urticaria, generalized convulsions, a striking drop of temperature, and others too numerous to mention.

These essential features of the phenomena being determined, it remains to inquire into certain important details, and first among these comes the question of the sensitizing dose. To put this problem in the shape of a question—what dose of a foreign proteid,

upon a first introduction, will render an animal hypersensitive to that proteid? This question introduced us at once, not only to the problem of the relationship of anaphylaxis to immunity, but also to one of the most important problems of human disease. It was, until very recently, customary to maintain that not only very minute doses of a foreign proteid were effectual in producing the anaphylactic state. In fact, one of the most remarkable aspects of the entire subject is the fact that excessively minute doses, such as 0.001 cc. of horse serum or 0.000001 gms. of purified egg albumin is sufficient to render an animal hypersensitive. On the other hand, it had been quite generally taught that the use of larger doses of foreign proteid induced, not anaphylaxis, but immunity, a condition which is the reverse of anaphylaxis, in so far as the animal manifests a heightened resistance to the toxicity of a foreign proteid. We may now regard it, however, as fairly well established that large doses of foreign proteid sensitizes an animal, if we may judge from the results obtained in guinea pigs, in exactly the same fashion as do minute doses. Guinea pigs which have received subcutaneous injections of 2 or 3 cubic centimeters of horse serum on each of three successive days may be killed after an interval of ten days by an injection of horse serum which is less than one-tenth of the toxic dose for the normal animal. This result follows not occasionally, but regularly, and with certainty. It is apparent that this statement is entirely opposed to the findings of the earlier investigators. As recently as 1911, Besredka stated that the introduction of doses of horse serum in amounts larger than one-fiftieth (0.02) of a cubic centimeter resulted generally in the production, not of anaphylaxis, but of immunity. The difference in conclusions is due simply to a difference in the method of experimentation. In former years, it was customary to make the second, or so-called "toxic" injection, either by the intraperitoneal or by the intracerebral route. The recent results have been obtained by means of intravenous injections. It is evident, from what has been said, that in one particular at least the processes known as immunization and as hypersensitization are alike, in so far as it can be shown that the animal is hypersensitive in exactly the same fashion after the one as after the other.

And this is equivalent to the statement that every immune animal is **potentially anaphylactic**.

And, yet, there is undeniably a striking element of difference between immunity and anaphylaxis. An animal sensitized by a minimal dose of horse serum, may be killed by one one-hundredth (0.01) of a cubic centimeter of horse serum, given intravenously. An immune animal presents no symptoms upon such an injection, **but may be killed by five-tenths (0.5) of a cubic centimeter**. A sensitized animal may be killed by one-half cubic centimeter, given intraperitoneally, but a highly immunized animal often presents no symptoms upon the intraperitoneal introduction of doses which represent the limit permitted by the experiment—such as 6 or 8 cubic centimeters. This difference, although apparently simply quantitative, actually represents a fundamentally different mode of reaction to the antigen in the two types of animal. The immune animal possesses a considerable amount of free circulating antibody, in addition to a relatively enormous amount of loosely fixed, quickly mobilized antibody. The sensitized animal, however, has extremely small amounts of free antibody in the blood. Therefore, in the sensitized animal the sensitized cells are left naked to the attack of the antigen, whereas, in the immunized animal the antigen is effectively bound before it can reach the cell. This interpretation, which seems necessary in the light of recent facts, is fundamentally different from that of the humoral school. According to the humoral school, every reaction between antigen and antibody occurs within the circulating blood. If the amount of antibody available is small, as in the sensitized animal, the destruction of the introduced antigen is incomplete, resulting in the production of toxic proteoses. In the immunized animal the antibody is present in amounts sufficient to break down the antigen rapidly into non-toxic end-products. Thus, according to the cellular theory, the process productive of anaphylactic symptoms is essentially different from that of immunity, whereas, according to the humoral theory, the two processes are identical, differing only in degree.

The relationship of these data to the problem of human medicine is not far to seek. It had long been known that individuals



who had received a previous dose of diphtheria antitoxin, were likely to respond with more or less severe symptoms upon a second introduction, after an interval. But the fact that diphtheria antitoxin is usually administered hypodermically, is sufficient practically to insure absolute safety from anaphylactic death. An altogether different condition confronts the medical profession, in connection with the use of antimeningococcus serum. In meningitis it is customary to inject very large quantities of serum, often 20 or 30 cubic centimeters, intra-spinally, in some cases repeatedly. Such human individuals, according to the common interpretation of the facts, should be immunized against this serum. On the other hand, if the analogy of the guinea pig experiments is applicable, such individuals should be hypersensitive to this serum, if given intravenously. Now, the administration of large amounts of serum intra-spinally, especially where the meninges are inflamed, is essentially similar to an intravenous injection, owing to the fact that absorption is excessively rapid. It follows, therefore, that such individuals should by analogy prove hypersensitive upon the renewed administration of serum after an interval of days. As an actual fact, the recorded cases demonstrate that human beings react in this respect, exactly as do the guinea pigs. Hutinel has recorded four cases of meningitis, in each of which the patient had received several large intraspinal injections of serum. After an interval of a varying number of days, a renewal of the symptoms prompted the use of another intraspinal injection. This resulted in a violent explosion of characteristic symptoms and death. Hutinel rightly attributes this series of disasters to anaphylaxis. No less an authority than Netter cites two additional cases, and other cases may be found in the literature. It is, therefore, at once apparent that the use of serum in meningitis, under conditions such as those described above, is always associated with the very material danger of anaphylactic death. The use of large doses of therapeutic sera, intravenously, it seems hardly necessary to add, is associated with exactly the same dangers, perhaps in higher degree.

Passing over other features of anaphylaxis, which have a less important practical bearing, we come now to the problem of de-

sensitization. It has long been known that a sensitized animal, which has received a second dose of antigen, not large enough to produce death, but still fairly large, is thereby rendered refractory to further injections of the antigen, and that this refractory period persists often for weeks. Besredka suggested that this fact might be utilized to avert the danger of a threatened anaphylactic shock. He advocated that all patients upon whom a therapeutic injection of serum was to be practiced should be given either one smaller dose or a series of graded doses of the serum by way of preliminary, in order to protect them from the subsequent large injection. He demonstrated very convincingly upon sensitized guinea pigs the complete effectiveness of this method. Unfortunately, however, Besredka sensitized all his guinea pigs with minute doses of serum. If he had employed massive doses, as in the experiment previously described in this paper, he would have found results which largely interfere with the practical effectiveness of his method. Thus, a guinea pig which had been sensitized by means of several massive doses, can not be desensitized by a preliminary injection of serum, which may be even four times as great in amount as the lethal dose for guinea pigs sensitized by means of a small dose. In order to know, therefore, what dose is necessary for the purpose of desensitizing a guinea pig, one would have to know in advance by what dose the guinea pig had been sensitized. Such data are, of course, absolutely unobtainable in human cases. Consequently, the method of desensitization is subject to very great errors. A case very much in point has recently been recorded by two French observers—Grysez and Dupuich. In this case antimeningococcus serum had been given in considerable quantities. Three weeks after the arrest of the symptoms, they recurred, suggesting a repetition of the intraspinal injection. For the purpose of avoiding shock, the authors gave a preliminary intraspinal dose of 2 cubic centimeters of serum. Nevertheless, the subsequent injection produced severe symptoms of an anaphylactic character, in which death appears to have been narrowly averted. Therefore, it seems wise to urge that in such instances, the patients should be prepared for a subsequent intraspinal injection by the previous use of relatively very large doses

of serum, given subcutaneously. But, even with this precaution, the avoidance of anaphylactic shock is not insured. In this connection, it may not be amiss to mention that Auer has counselled the use of atropine in large doses.

Finally, among other aspects of the subject which present themselves, there is but one regarding which I wish to speak in detail, and this is the subject of antisensitization. A guinea pig may be passively sensitized by giving it an injection of the serum of a rabbit, which has been immunized against horse serum. A subsequent injection of horse serum, if made after the lapse of a few hours, kills such a guinea pig exactly as if it had been sensitized by a preliminary injection of horse serum. If, however, such a guinea pig receives an injection of normal rabbit serum a week or so before the immune rabbit serum is administered, this animal fails to be sensitized, and presents practically no symptoms upon the injection of horse serum. This phenomenon I have described as "antisensitization." It is explained upon the theory that the first injection of normal rabbit serum stimulates the production of antibodies, which then destroy the rabbit antibodies, introduced at the time of passive sensitization. Interesting as is this phenomenon from a theoretical standpoint, it has an additional practical bearing. It would lead by analogy to the belief that therapeutic antisera would materially lose in effectiveness when employed, even over brief periods of time, in human beings. The human organisms would rapidly produce antibodies after the first injection which would then destroy the antibodies on subsequent introductions of the same serum. Not to go into a long theoretical discussion, it would be fair to assume from the test-tube experiments upon anti-antibodies that antitoxic sera, such as diphtheria or tetanus antitoxin, would be largely excluded from this generalization. On the other hand, lytic sera, such as the anti-meningococcus serum or the pneumococcus serum, might reasonably be expected to fall within this domain. It is, perhaps, for this reason among others, that the local use of antimeningococcus serum, upon which Flexner has laid so much stress, is so much more effective. The neutralization of the introduced anti-bodies would occur chiefly in the blood. In the spinal canal, however, the



effectiveness of the serum is not seriously impaired by the presence of anti-bodies, even in an individual who has received many large doses.

The subject of anaphylaxis is so large, and its affiliations so widespread, that it is impossible at the present time to do more than indicate the essential and important features of the phenomenon. In a brief paper one is only too conscious of the inadequacies entailed by the necessities of time and space. It is possible that the present tendency to seek an explanation in anaphylaxis for a large number of the obscure phenomenon of disease is somewhat hasty. On the other hand, it seems likely that further study will lay bare many hitherto unsuspected relationships. At all events, we may feel certain that the understanding of the problem has by no means reached finality, and that many puzzling and obscure features—both of immunity and practical medicine—will be clarified by future research in this field. Moreover, it is surely not extravagant to hope that the anaphylactic perils which are at present associated with the use of therapeutic sera will eventually be removed by methods devised through laboratory research.—*The Louisville Monthly Journal of Medicine and Surgery.*

## Extracts from Home and Foreign Journals.

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### SURGICAL

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#### CHOLECYSTITIS.

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J. O'Connor, writing in *The Lancet*, believes that nothing short of cholecystectomy effects a permanent cure in the great majority of cases commonly known as attacks of gallstones. He has formed a plan of attack which has resulted in rendering removal of the gall-bladder a very simple ten minutes' performance. Making use of the Robson position, and a free vertical semilunar incision:

(1) The liver is drawn forward and upward, a superficial incision is made with a knife along the line of attachment (generally adhesion) of the gall-bladder to the under surface of the liver; with the handle of the knife a space is rapidly made for insertion of the left index finger, and in a few moments the gall-bladder is freely detached from its hepatic connection—separation is carried right down to the level of the cystic duct. In order to control oozing a gauze pad is placed in the fossa fellea.

(2) Having next carefully isolated the whole operative field, the gall-bladder is aspirated, then seized and incised between two of Lane's forceps, the interior mopped dry, and calculi removed. The gall-bladder is then vertically split down to the level of the cystic duct by a few strokes of the knife, the tip of the left index finger is inserted into the cystic orifice, and the divided gall-bladder, with forceps attached to cut edges, is gathered up firmly, in one grip, in the left hand, and pulled forward. The manoeuvre renders the operation practically a bloodless one, and greatly facilitates subsequent separation of deep adhesions and examination of ducts.

(3) The cystic and common ducts are then carefully palpated with the right hand, and the tip of the left index finger removed from the opening of the former for passage of a small sound. If no calculi are discovered, the tip of the finger is replaced, and the

assistant applies a strong catgut ligature, just below it, around the cystic duct. This ligature generally occludes the cystic artery. The two flaps of the gall-bladder are then cut away by a few transverse snips of a scissors, about half an inch in front of the ligature. When it is considered expedient to drain the bile-ducts no ligature is applied; the cystic artery and other bleeding points are ligated, and the edges of the cystic duct sutured to the upper angle (peritoneum) of the wound, and a small drainage tube fixed in the duct. Before closing the parietal wound by three or four through-and-through strong silk sutures, the author usually inserts a large drainage tube, which is left *in situ* (fossa fellea) for two or three days.—*The Medical Brief*.

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#### THE TREATMENT OF SURGICAL TUBERCULOSIS WITH ARTIFICIAL LIGHT.

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Dr. R. Hagemann (Deut. med. Wochensch.) reports successful results from the clinic of Professor Koenig with the quartz lamp of Nach-Nagelschmidt in 31 cases, comprising lupus, superficial tuberculosis processes, fistulas, glandular enlargement, etc. On the other hand, tuberculosis processes of the bones and joints were not improved to any extent and hence the quartz lamp does not serve as a complete substitute for sunlight. This is probably attributable to the fact that its effect is localized, while in heliotherapy the entire body is subjected to the influence of the light, the general circulation and metabolism being favorably influenced. As there has recently been some doubt as to whether the ultra-violet rays of sunlight are the sole therapeutic factor, the author set himself the task to determine whether other rays might not contribute to their action, and found that if the red rays were used in conjunction with the ultra-violet the effect was not only more marked, but more agreeable. Application of artificial light were always made in the open air, thus being supplemented by this valuable agent. This combined procedure was resorted to in 52 cases with speedy improvement of the patient's condition, as shown by a increase of appetite, better sleep, rapid subsidence of



pain, and considerable gain in weight. The local symptoms, however were slower in disappearing. When raw surfaces and fistulas were present, the discharge was at first increased and then gradually diminished until healing resulted. The mobility of tuberculosis joints was improved and the exudates absorbed, while cold abscesses disappeared. Sometimes it was found beneficial to combine this treatment with the customary surgical measures, such as puncture, injections of iodo-glycerine, curettage, and resections.—*Medical Fortnightly*.

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#### BONE TRANSPLANTATION.

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Chiari has transplanted small pieces of bone marrow into the spleen of a rabbit. The bone marrow retained its vitality and was found to have increased materially in size when the animal was killed five months later.

DeQuervain has treated two cases of total dislocation of the cervical vertebræ by a bone transplant, using a technic much like that of Albee in cases of tuberculosis of the spine, except that he took his grafts from the spine of the scapula.

McWilliams, being confronted with the problem of obtaining a bone transplant to fill the gap by the removal of the inferior maxilla, excised the curve of the seventh rib superiosteally and successfully inserted this bone. He obtained an excellent cosmetic result.

Jokoy has been studying the effect of periosteum emulsion as an aid to bone production. His experiments have been carried out in rabbits and dogs. His conclusions are: (1) That autoplasmic implantations of an emulsion of small pieces of periosteum causes new formation of bone tissue in most experiments. (2) That mechanical conditions play a great role. Thus his negative cases were those in which the periosteum was shrunk or rolled up. (3) In one case, examined seventy days after the injection, there were no signs of resorption of the formed bone, but rather a tendency to further growth. (4) The homoplastic cases were positive, but did not show such a marked formation of new bone as

the autoplasmic. (5) The heteroplasmic cases did not show any formation of new bone. (6) Fresh blood injected with the periosteum did not seem to have any favorable influence on the formation of new bone. (7) Fibrin favors the formation of new bone. (8) Any small pieces of bone by chance injected with the periosteum will be absorbed.—*The American Practitioner*.

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#### SPLENECTOMY FOR PERNICIOUS ANEMIA.

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The claim that splenectomy has cured cases of true pernicious anemia will naturally be regarded as quite ill-founded and based on an error of diagnosis. Only when the anemia is due directly to a diseased spleen, as in Banti's disease, would it appear rational to remove the latter, and the clinical results entirely bear out the theory. Nevertheless it appears that about last June Unger removed a spleen from a patient who presented an increased hemolysis *in vitro*. Mosse also removed a diseased spleen from a woman whom he believed to have pernicious anemia. Hardly anyone would agree at first with his diagnosis on account of the robust appearance of the patient after her operation. Before the latter her red cell count was but 1,100,000; now it is more than 4,000,000. At the October meeting of the Berlin Medical Society (*Berliner klin. Wochenschrift*, November 3) Huber read a paper on the influence of splenectomy on pernicious anemia which will appear soon in full in the same journal. He also presented the patient. In discussion it was shown that an Italian, Antonelli, had done splenectomy, for pernicious anemia at Baccelli's clinic. Huber denied that there is any contraindication to the operation in the presence of the pernicious blood state. Leucemia is the sole contraindication.—*Medical Record*.

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#### HAIR-BALL REMOVED FROM STOMACH OF A CHILD.

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An unusual case of gastric disturbance is illustrated by a case reported by S. Barling (Proc. Roy. Soc. Med.). A girl seven years of age was admitted for vomiting and severe pain in the

upper abdomen of two days' duration. Since an attack of dysentery four and a half years before she had been in the habit of chewing up pieces of string, tape, etc., and occasionally fragments of such things had been found in the motion. Her appetite was good up to ten days before the time she was taken ill, food being taken in normal quantity and without discomfort. On examination, a hard lump resembling the outline of the stomach could be felt descending from beneath the left costal arch, and passing transversely across the epigastrium. The outline of the tumor together with the history led to a correct diagnosis. The specimen was easily removed through a longitudinal incision into the anterior wall of the stomach about 3 inches long. The opening in the stomach was closed by a double layer of sutures, and the child made an uneventful recovery. The specimen consisted of a mass of hair and string, the former predominating; it presented an exact cast of the stomach. — *The Charlotte Medical Journal*.

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## MEDICAL

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### CALCIUM CHLORIDE.

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It was shown through experiments by Hammarsten, Ringer and others, some years since, that the coagulability of the blood depends upon the presence in that fluid of calcium. The chloride salt was used in a variety of conditions, with the result that its almost universal adoption was brought about as an efficient hemostatic in all cases where hemorrhage was anticipated or in actual evidence by clinicians in Europe and America. Reports collected from medical literature show its curative effects in hemophilia, purpura hemoptysis, epistaxis, gastrointestinal hemorrhage, aneurisms, menorrhagia, postpartum hemorrhage and in teeth extraction, as well as general surgery before operations. It acts as an aid in the cicatrization of tubercular ulcerations, in chorea and colliquative diarrhea of children, and as a curative agent in eczema



and lupus, chilblains and ulcers; in glandular enlargements, urticaria, tonic and in promoting the secretion of milk in nursing mothers.—*The American Practitioner*.

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#### PNEUMONIA AND CARDIAC LESIONS.

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Keller states that in pneumonia, even so slight a lesion as a lateral arteriosclerosis may be sufficient to render the heart the *locus minorae resistantiae*. During the pneumonia the arteriosclerosis may become apparent, perhaps as a stenosis and insufficiency of the aortic valves. The author no doubt refers to this complication as it occurs in young and middle-aged people, since in the old the association must be extremely common. A subject who has never experienced any illness is stricken at an advanced age with pneumonia. If some evidence of arteriosclerosis did not crop out during repeated examinations, one would be surprised. The author's patient was a man of 36, in apparently perfect health. He passed through a typical pneumonia, the heart behaving throughout in a normal manner, until about four weeks after the onset of the disease, when he complained of dyspnea. Heart boundaries were normal but a systolic murmur was everywhere present. Later the noises became loudest about the aortic valves. Recovery occurred to some extent, the patient being able to go about as usual, but the state of the valves showed no change. The author had made a diagnosis of endocarditis following pneumonia but the picture and history showed that the heart lesion must have been atypical. An x-ray showed a heart of normal size and site. There was no evidence of arteriosclerosis, and as a high degree of anemia was present it was believed that this formed a link between the pneumonia and cardiac lesion. Some months later a second examination showed that the anemia had disappeared while the symptoms pointed entire to arteriosclerosis. There could be no doubt that an early arteriosclerosis or presclerosis had been intensified by the pneumonia.—*Medical Record*.

### "WEEDS" TO EAT.

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During these days when the cost of foods are gradually increasing, any attempt to secure new and cheaper commodities is welcome. In the *Gardener's Chronicle* of America, March, 1913, Mary Tabott calls attention to the value of many of our common weeds as vegetables and salads. The common dandelion, the milk-weed, yellow dock, red clover, poke shoot, sour grass and golden thistle, bring to mind visions of the countryside, the fields, the woods and the waste places. They are known to the many as foods for cattle and for goats, though a few nationalities that have been transported to this country make use of some of them as foodstuffs.

The idea of cultivating weeds regularly as a crop is not unreasonable if the general public can be brought to realize and appreciate their food value. The value of the mineral elements contained in these common plants differs but little from that obtainable from most of the vegetables cultivated at present. As sources of nitrogen, some are of greater service than the salads now in common use.

The medical qualities of the dandelion, yarrow, marsh marigold and similar wild plants is well established in folklore. The growth of new foods in popular favor is slow. It required twenty-five years to establish a good dietetic reputation for the "love apple," as the tomato was termed. Mushrooms were long forsworn as inedible and poisonous.

In the search for new food material, it appears to be rational to look about us, to consider the familiar plants which almost daily present themselves to view. The pastures, the meadows, the forests and the fields may yield many plants now merely admired for their beauty, their odor or their decorative value, which may perchance be valuable additions to our daily economy. The cultivation of foodstuffs of high caloric value and with low cost deserves encouragement. In the struggle for life and sustenance, we must not underestimate the life-preserving qualities and the dietetic value of the common "weeds" that are so abundant where least desired.

Nourishment is not to be refused, though it comes from the roots of the thistle, the shoots of hops, the purslane or the tuberous roots of broad leaved arrow. The soy bean is barely known, save as a forage crop or as an antidiabetic food. Alfalfa promises to assume a place of importance. Weed cultivation will lead to a wider variation in dietaries. The monotony of the daily meals may be changed while the cost may be reduced. The palate will receive greater pleasure and the pocketbook will suffer less distress. The chemist, physiologist, dietician, economist and physician may be able to coöperate in opening up new fields of available food that will serve to add to human welfare, comfort and efficiency.—*Medical Review of Reviews*.

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TREATMENT OF TUBERCULOSIS IN THE CHILD BY THE  
METHOD OF FERRIER.

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Galliot (*Arch. de med. des enf.*) gives his results in children unable to leave the poorer quarters of Paris for the country, when treated by the remineralization of Ferrier. The children treated were in the first and second stages of pulmonary tuberculosis, or had tracheobronchial adenopathies. The remineralization is accomplished by the administration of a mixture of carbonate and phosphate of lime, chloride of calcium, calcined magnesia, and arrhenal, given in powders proportionate to their age, three times daily for months. He also gave cod liver oil because in its composition it has lecithin, and organic phosphorus, iodine, and bromine assisting in remineralization. The little patients treated by this method all were benefited by it. Two typical histories are given in detail. The Dr. finds that the pulmonary lesion was benefited by the treatment, although cicatrization has not yet been obtained and there must be some reserve as to the ultimate results still there has been a complete arrest of the development of the disease. The general condition has much improved, the loss of flesh and cachexia have ceased; weight has increased and growth has gone on regularly. He recommends this method of treatment which is applicable among the poor who can not go to the country or undertake expensive treatment.—*The Charlotte Medical Journal*.



## OBSTETRICAL

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### AFTER RESULTS OF OPERATION FOR UTERINE DISPLACEMENTS.

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Giles (Proc. Roy. Soc. Med.) finds that the general or local health of patients has been improved in 90 per cent of cases, the position of the uterus has remained good in 96 to 98 per cent; there have been records of sixty-two full-time confinements, with no complications that could be attributed to the operation, and including forty-seven natural labors; the uterus has kept in good position after labor in 97 per cent; and the patients have been free of bladder disturbance or had no more than before operation in 85 per cent of cases, 20 per cent having actually improved. Hysteropexy is, therefore, a valuable procedure in cases of retroversion, prolapse, and procidentia, inasmuch as it is simple, safe, permanent in its effects, and not harmful in the event of subsequent pregnancy.—*The Charlotte Medical Journal*.

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### FLOATING SPLEEN AND ITS RELATION TO OBSTETRICS

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Dr. F. Montuoro states that floating spleen appears to be a disease peculiar to the feminine sex, as shown by the overwhelming majority of the observed cases. The reason for this has not been satisfactorily explained. Enlargement of the organ alone will not account for it, for while malarial splenic tumors are more frequent in males than in females, prolapse of such a spleen is never found in them. According to a number of authors the spleen becomes congested and enlarged during pregnancy, and this may have some bearing upon the etiology. In general, the factors concerned in the causation of floating spleen comprise enlargements of the organ, changes in the peritoneal folds, reduction of abdominal pressure, relaxation of the abdominal walls, etc., in connection with a traumatic factor or vomiting. While any of these conditions may be present in pregnancy, they do not suffice for an

explanation, since otherwise floating spleen would be much more frequent during this period than at other times. Even the changes in the thoracic and abdominal organs caused by the wearing of a corset can not be considered of etiological significance, because the majority of splenectomies have been performed in peasant women who do not wear corsets. Floating spleen has been observed in all regions of the abdomen and may contract adhesions with any of the abdominal or pelvic organs. Its presence only becomes serious when a twisting of the pedicle takes place because of the severe resulting changes in the splenic structures as well as the inflammatory reaction in the peritoneum and neighboring viscera. If pregnancy occurs in a subject of floating spleen the organ may be compressed between the uterus and pelvis or its pedicle may become twisted, requiring resort to splenectomy. Fortunately, this operation gives a favorable prognosis both as regards the mother and the continuation of the pregnancy. Floating spleen is rarely correctly diagnosed, the tumor being very likely confounded with inflammatory swellings or neoplasms.—*International Journal of Surgery*.

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#### LOCAL ANESTHESIA IN MINOR GYNECOLOGY.

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S. J. Wolfermann, of St. Louis (*Jour. Mo. State Med. Assn.*, May, 1913), is a believer in the use of local anesthetics for anesthesia in cleansing the infected uterus. He has been in the habit of using cocain in  $\frac{1}{2}$  per cent solution for this purpose, but he quotes the history of one case in which the patient had every symptom of cocain poisoning, and he remarks that the possibility of an idiosyncrasy for cocain and the well-known toxicity of this drug make it advisable in the future to reduce the concentration of the solution used, or to substitute for it a less dangerous drug such as novocain, etc. In addition to incomplete abortion, local anesthesia opens a most promising field in minor operations on the cervix and body of the non-pregnant uterus. We believe local anesthesia will eventually become the sovereign method in minor gynecology, and in such cases do away with the well-known dangers and discomforts of general narcosis.—*The Lancet-Clinic*.

## Editorial

**PUBLISHER'S NOTICE**—The Journal is published in monthly numbers of 48 pages at \$1.00 a year, to be always paid in advance.

All bills for advertisements to be paid quarterly, after the first insertion of the quarter.

Business communications, remittances by mail, either by money order, draft, or registered letter, should be addressed to the Business manager, C. S. Briggs, M. D., corner Summer and Union Streets, Nashville, Tenn.

All communications for the Journal, books for review, exchanges, etc., should be addressed to the Editor.

### THE RUNNING EXPENSES OF A CITY DOCTOR.

In view of the Income Tax it seems apropos to make a rough estimate of the running expenses of an average city doctor. Such an estimate as we are going to make refers especially to cities in the South where the great majority of doctors have an office establishment which is separate and distinct from the home. The automobile expenses we consider a *sine qua non* in any city of 75,000 inhabitants or more, except in the very large cities like Chicago, New York, Buffalo and others where the transportation facilities are such that nearly any home can be reached by some of the numerous methods of public transport:

Automobile upkeep -----	\$300 00
Telephone -----	60 00
Office girl -----	144 00
Office Rent -----	240 00
County and State Society, including journal--	7 00
American Medical Ass'n, including journal---	5 00
One good journal-----	5 00
Physician's Liability Insurance-----	20 00
Books -----	30 00
Medicines and Reagents for office-----	10 00
Dressings and new instruments-----	25 00
	\$846 00



As these figures are all rather low, especially those for the automobile and office rent, we are safe in counting the actual running expenses incident to business, \$1,000.00. So we see that, contrary to the layman's ideas, everything the doctors collect is not net profit by any means. Of course it is unnecessary to explain how expenses increase with increase of practice up to a certain point, at which point the proportion of actual running expense to actual collection commences to decrease, though not as much as one might suppose.

The above estimate does not include any allowance for attendance of medical societies, visits to the large clinics, etc., which at this day and time are almost a necessity if the doctor would keep up-to-date in his special line of work.

The young doctor who collects \$1,200.00 annually the first few years is doing well considering he is practicing medicine, and yet when we consider that he is six or eight years older than his college classmate who chose business as his means of livelihood, financially at least the young doctor is far behind. His college classmate is probably earning from \$3,000.00 to \$5,000.00 annually and has only to assume the expenses of an office when he feels that he is capable of meeting all expenses and yet have a surplus at the end of the year. If he could not reasonably count on this surplus amounting to more than a salary under some other man, in all probability he would not choose to go into business on his own hook.

Most young business men have no office expenses and can count their salaries net profit, whereas the young doctor is doing well if he can keep his head above water.

When we stop to consider what a difference there is, financially speaking, between professionals in general and the medical profession in particular and business, we do not wonder that the young men choosing medicine are becoming fewer and fewer each year. This decrease of course is largely due to the higher requirements demanded of all applicants, but there would be a diminution in the number of graduates just the same, though perhaps not so great, were the full four years in a medical school, regardless of the type of school, required followed by one or two in a hos-

pital before the State law would permit the graduate to practice medicine.

With all due respect for those exponents of higher medical education, and in our own little way we are one of them, we say do not take too much credit unto yourselves for the diminution in numbers of the medical schools and graduates but consider the above figures, the high cost of living, and last but not least, the difference financially between medical education fifteen years ago when the country boy could come to the city from October to April for two years and return a full-fledged doctor, and that of today when four years are required in the medical school and some hospital experience afterwards.

We ourselves think the high cost of living and the longer duration of the training, regardless of whether it is more scientific or not, has kept ten men from taking up the study of medicine where the mere increase of entrance requirements has prevented five.

In other words, the elevation of the medical profession is not an unmitigated benefit to the public because many men moulded in the stamp of a Gross, Agnew or some of the others we look upon as our brightest lights choose some other means of livelihood and the entire profession and all people are losers thereby.

When a man is in the schoolroom nine months in the year it is hard for him to make enough money to carry him through the next nine by working only three, no matter how desirous he may be of being a doctor, and when we consider that even after he graduates he is not assured of a livelihood we can not help but wonder that there are even as many medical students as there are.

Of necessity there has to be some change or we will have a medical aristocracy which can never be as good as the great democracy which the medical profession has always represented. Whether this change will mean rapid increase in the number of scholarships, rapid increase of fees or what not, we are unprepared to say, but we do predict a change and that at no distant time.

TO SUBSCRIBERS.

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We are sending out with this, the closing number of the 107th volume of the Journals, statements to everyone who is in arrears for subscription. A great many have paid their dues and in most instances have renewed their subscription. Many do not let us hear from them at all and yet suffer the Journal to be sent to their address if we choose to send it. This, however, the United States Postal laws will not permit, as the subscription must be a paid-up subscription. We would like to have some kind of a notice from those who have been receiving the Journal as to whether the Journal should be sent or not. It is only an act of everyday courtesy to reply to letters and all we wish is the word, the more appreciated, however, if the notification for a continuance is accompanied by a remittance of the amount due. Whether these readers wish their subscriptions continued or not we beg to have a line signifying their wishes. Our Journal is entering upon the 63d years of its existence and will be thankful for your patronage and support of our confreres in the practice of medicine. Let us hear from you without delay and we will appreciate it greatly.

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NATIONAL DRAINAGE CONGRESS.

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## Section on Malaria Eradication.

DEAR SIRS

I desire to call your attention to the Malaria Section of the National Drainage Congress. This section was organized during the Third National Drainage Congress held at St. Louis, April 10-12, 1913.

Our objects shall be to stimulate the study of the distribution, prevalence and economic importance of malaria, to conduct a campaign of publicity as far as our means will permit, and to devise ways and means to effect a permanent and efficient campaign against this grave disease.

The next meeting of the Congress will be held in Savannah, Ga.,



in 1914, the exact date to be announced later. At this meeting an extensive malaria program is contemplated.

Your membership and coöperation are earnestly desired. We want you to attend the next meeting and to contribute to the program or take part in the discussions. The membership fee in the Section is two dollars. Please have this letter read before your medical society.

Hoping to have you with us I am,

Cordially,  
WM. H. DEADERICK,  
*Secretary.*

## Reviews and Book Notices

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"The Institution Quarterly"—An Official Organ of the Public Charity Service of Illinois. The Publishers: The State Board of Administration; The State Charities Commission. The Staff: A. L. Bowen, Executive Secretary, State Charities Commission, Springfield, Ill.; Dr. Frank P. Norbury, Alienist, State Board of Administration, Springfield, Ill.; Dr. H. Douglas Singer, Director, State Psychopathic Institute, Kankakee, Ill. Vol. 14. No. 2.

We are in receipt of this valuable quarterly publication, issued in the interests of various commissions looking to the betterment of the wards of the state. It contains much interesting reading concerning the promulgation and progress of state charity work and in this way tends to widen out and improve the care of the unfortunate class of indigents that depend upon the state for existence. The object of the publication is thus declared. Issued by the State Board of Administration, State Charities Commission and the State Psychopathic Institute to reflect the public charity service of Illinois; to public the results of its investigations and researches in the manifold questions of care and treatment of all classes state wards and to lead the way towards a harmonious coördination of all public and private agencies throughout Illinois which at any point touch the problems of philanthropy, charity and social betterment."

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"First Book of Health"—A Textbook of Personal Hygiene for Pupils in the Lower Grades. By Carl Hartman, B.A., M.A., Instructor in Zoology, University of Texas; and Lewis Bradley Bibb, B.A., M.D., Attending Physician, Austin Sanitarium, with one hundred and twenty-two illustrations. Yonkers-on-Hudson, New York. World Book Co., 1913.

We have looked over this textbook carefully and think it a most useful handbook for the instruction of young pupils in the preservation of health. It teaches in readily intelligible form the elements of everyday hygiene and in the establishment of correct habits of living. This health primer has been adopted by the pub-

lic schools of Texas and we feel sure that it will prove productive of good results in the educational system among the children of that great state.

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"Transactions of the American Otological Society"—Forty-sixth Annual Meeting, Hotel Raleigh, Washington, D. C., May 6 and 7, 1913. Vol. XIII, Part 1. Published by the Society, New Bedford, Mass. 1913.

This volume of this representative society speaks well for the enthusiasm and progressive spirit of its members. A large number of exceedingly valuable papers are presented which furnishes valuable reading matter not only to the specialists but to the general practitioner as well.

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"Progressive Medicine."—A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D., Professor Therapeutics and Materia Medica, Jefferson Medical College. Assisted by Leighton F. Appleman, M.D., Instructor in Therapeutics, Jefferson Medical College, Vol. XV, No. 3, September 1, 1913. 310 pages. Illustrated. Lea & Febiger, Philadelphia and New York. 8 vo. Paper. Subscription price, \$6.00 per annum.

We acknowledge with thanks the receipt of the September number of this valuable quarterly and take great pleasure in recommending the publication to our readers as one of the most useful periodicals of the day. It is a review of medical progress and as such places in attractive form the most recent advances in medicine and surgery. Vol. III presents the following: "Diseases of the Thorax and Its Viscera, Including the Heart, Lungs and Blood Vessels," by William Ewald, M.D., F. R. C. P.; "Dermatology and Syphilis," by Wm. S. Gottheil, M.D.; "Obstetrics," by Edward B. Davis, M.D.; Diseases of the Nervous System," by William G. Spiller, M.D.; Index. We think this volume compares favorably with any of the foregoing any one of which is worth more than the cost of a yearly subscription.



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